

**PREPARATION OF A MAINTENANCE, SIMPLE REPAIR, AND  
INTERVENTION HANDBOOK FOR  
YENİ FOÇA- İZMİR**

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IN  
THE DEPARTMENT OF ARCHITECTURE, IN RESTORATION**


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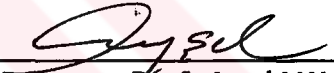
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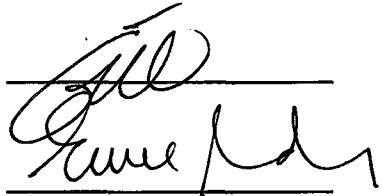
  
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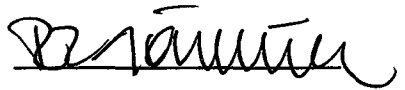
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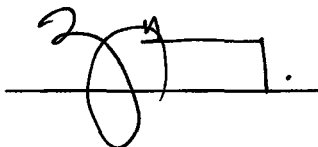
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## **ABSTRACT**

# **PREPARATION OF A MAINTENANCE, SIMPLE REPAIR, AND INTERVENTION HANDBOOK FOR YENİ FOÇA- İZMİR**

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This study is a research aiming to prepare a handbook for the users of traditional buildings to do maintenance and simple repairs for their houses. The architectural protected site in Yeni Foça, whose texture is maintained to a great extent was chosen for this study.

The study is composed of five sections. In the introduction chapter, the main aim and content of the study, the methodology of the study, the sources and the limitations of the study are discussed.

In the second section, general information on Yeni Foça is given. Detailed explanation on the city fabric, architectural characteristics construction techniques, and structural condition are given generally.

In the third section, detailed analysis results on the façade and façade elements are given, supported by statistical data, plans and typologies.

The fourth and fifth sections compose the handbook. In the fourth section general information is given aiming to create an empathy between the user and the town. In addition, recommendations on how to use the handbook and things to be careful about when dealing with Traditional buildings are listed here.

The fifth section includes various problems seen in the windows, shutters and doors of Yeni Foça, the façade, window, shutter, door typologies of the buildings are given supported by various statistical data. Apart from this, recommendations for these problems are given. Each element that forms the subject of the thesis are evaluated one by one and definitions, simple repair and new element proposals are given supported by 1/1, 1/2, 1/5, 1/10 ve 1/20 scale drawings. It also includes maintenance proposals. The definition and importance of maintenance, the points to consider during for maintenance are given.

**Keywords:** traditional dwelling, Yeni Foça, İzmir, architectural characteristics, maintenance, simple repair, handbook, window, door, shutter, Stone masonry,

## ÖZ

# İZMİR YENİ FOÇA İÇİN BAKIM, BASİT ONARIM VE MÜDAHALE EL KİTABI HAZIRLANMASI

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Bu çalışma, geleneksel konutların kullanıcıları tarafından bakımlarının ve basit onarımlarının yapılabilmesi için bir el kitabı hazırlanmasına yönelik bir araştırmadır. Araştırma alanı olarak dokusunun çok az bozulmuş olduğu saptanan İzmir Yeni Foça'nın Mimari Koruma Alanı seçilmiştir

Çalışma beş bölümden oluşmaktadır. Giriş bölümünde, çalışmanın amaç ve içeriği, kullanılan metod ve kaynaklar, çalışmayı sınırlayan faktörlerle birlikte ortaya konmuştur.

İkinci bölümde, Yeni Foça ile ilgili genel bilgiler verilmiştir. Genel olarak kasabanın genel dokusu, mimari karakteristikleri, inşa teknikleri ve binaların yapısal durumu, istatistiksel datalar, planlar ve tipolojiler ile desteklenerek anlatılmıştır.

Üçüncü bölümde, cephe ve cephe öğeleri ile ilgili bilgiler, istatistiksel datalar, planlar ve tipolojiler ile desteklenerek verilmiştir.

Beşinci ve dördüncü bölümler, elkitabını oluştururlar. Dördüncü bölümde, kullanıcı ile kasaba arasında yakınlık kurmak amacı ile genel bilgiler verilmiştir. Bunun yanı sıra, elkitabının kullanıcısının kitabı nasıl kullanabileceğine ve geleneksel konutlarla uğraşırken dikkat edeceği noktalarla ilgili öneriler sıralanmıştır.

Beşinci bölümde, Yeni Foça'da kapı, pencere ve kepenklerde görülen çeşitli sorunlar, yapıların cephe, kapı, pencere ve kepenk tipolojileri, her türlü istatistiksel bilgi ile desteklenerek verilmiştir. Bunun yanı sıra, sorunlarla ilgili önerileri ortaya konmuştur. Tezin konusu olan her eleman ayrı ayrı değerlendirilmiş, bunlarla ilgili tanımlar, onarım ve yeni eleman önerileri 1/1, 1/2, 1/5, 1/10 ve 1/20 ölçekli çizimlerle desteklenerek verilmiştir. Son olarak, bakımın tanımı, önemi, bakım sırasında dikkat edilmesi gereken hususlar belirtilmiştir.

**Anahtar Kelimeler:** Geleneksel Konut, Yeni Foça, İzmir, mimari özellikler, kullanım sorunları, bakım, basit onarım, el kitabı, pencere, kepenk, kapı, yığma taş

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## CHAPTER 1

### INTRODUCTION

Traditional buildings in Turkey are a considerable building stock, yet they have many problems. Change of life-style and socio-economic condition of the inhabitants, current function of the building, state of occupancy, and the ownership pattern cause serious transformations in the physical state of the buildings, thus causing loss of the values that they possess, or even loss of the building itself. Restoration practices that are not well thought upon form a new, pseudo-traditional architecture that speak a somewhere-in-between language that actually belongs nowhere.

Sometimes traditional buildings may preserve their values for a longer period, if they are empty or neglected. However, lack of maintenance will cause continuous deterioration and this will at the end, cause the building to vanish. Lack of maintenance may have various reasons: Nevertheless, the most common and serious reason is indifference. Generally, house owners neglect to maintain their houses, results in serious problems in the end.

It would be too optimistic to prepare a handbook and hope that house owners will read and apply it at once, when they have no motive to do so. A handbook as such should aim to make people to understand the value of these buildings and protect them because they feel they should do so. It should make people understand why it is important to own a house as such and why they need to maintain their houses.

## 1.1 AIM AND CONTENT OF THE STUDY

Yeni Foça is a town with a well-preserved traditional pattern. Yet, the buildings are mostly neglected. The new sections of the town have mostly developed outside the historic core. The repairs done by the house owners are often insufficient and usually cause additional problems for the building. In addition, as it is a summer resort town, there is an increasing demand for these buildings as summer housing. This in turn increases the need for repairs. In addition, as new house owners are mostly from outside Yeni Foça, the non-traditional methods that they use for repairs cause even more problems for the material of their building. The buildings in the study area are stone load-bearing houses, which are the most frequent type seen in the coastal Aegean region; like in Foça, İzmir, Ayvalık, etc. Thus, Yeni Foça is selected as a study area, because it is a good sample of the traditional towns in the area, with its mostly protected traditional pattern.

Aim of this study is to prepare a maintenance and simple repair handbook for the owners and inhabitants of traditional houses. In the handbook, there is information for the house owners on the history and value of the town and their houses, detection of the problems in their houses and the reasons for these problems. The limits that they can intervene the building without the permission of the conservation council are defined. The handbook prepared will guide them on the choice of material and on the construction techniques. It is hoped that this study encourages and guides these people on maintaining their houses, so that need for larger scale repairs in the future is minimized. The primary aim of the study was to focus on the building as a whole. Yet, after the initial studies in the area, the scope of the study was narrowed down to the exterior of the buildings; especially on the façade elements; doors, windows and shutters.



## 1.2 METHODOLOGY

### 1.2.1 Source Survey

The history of the town is linked to the history of Eski Foça; Phokaia, and in many resources there is no differentiation between the two towns. In many cases, there was only reference to a single Foça referring to either towns, or Foçateyn, meaning two Foça's. This data had to be used as it is. In addition, due to reasons stated above, short information on the history of Eski Foça is given. During this study, first hand sources about the early history of Yeni Foça could not be reached. The most reliable second-hand sources are used during the preparation of the history of the town; like sources using the first hand official sources. Being a small settlement under the shadow of the major trade centre, İzmir, information on its trade could only be gathered from among the data given for İzmir. These data are obtained from various diaries of the tradesmen who lived in İzmir, and some documents giving detailed information on the trade activities of İzmir and its environs.

In addition, some information is obtained from the inhabitants of Yeni Foça. Especially the old generation gave information about the pre-war period and about the original forms and some construction techniques of the buildings.

The 1/1000-scale map of Yeni Foça, prepared by İller Bankası (Bank of Provinces; State Owned Development and Investment Bank) is used as a base map for the initial study. The plans of the most recent Conservation Plan of 1992 are obtained from the Municipality of Yeni Foça. In addition, various theses on Yeni Foça and Eski Foça are studied. The analysis and typologies prepared on some parts of Yeni Foça using the theses of Ege Uluca and Cem Arslantaş, which are restoration theses prepared in the

Department of Architecture in METU, are used as a basis for the site survey. The detected problems of the building, material and structural system are used to determine the checkpoints on the site.

### 1.2.2 Site Survey, Analysis and Evaluation of Buildings

The first step of the site survey is a general analysis of the site, to determine the scope of the handbook to be prepared and to determine the boundaries to be included in the study. The initial aim was to select a small area in order to realize a thorough study. However, during the study, it is observed that neighbourhoods show different characteristics. One section is the commerce section, the other is the section where commerce and dwelling took place in the same building, a third section is located around the olive oil factories, one with only dwellings and one is the Turkish settlement, with a different construction system. So, the whole site is selected as the study area. There are 437 traditional buildings within the boundaries of the historical site. This is approximately one third of the total number of buildings within the protected urban site.

The second step is to make a survey of the traditional buildings in the site, in order to determine the façade, plan and element types, and their problems. The base map is updated before any further study. All the changes in the site are documented on the map. Street names and building numbers are renewed; collapsed buildings and new buildings are marked. In this way, the density of the traditional buildings is detected in order to plan the following surveys.

An exterior survey is carried out in the protected urban site in Yeni Foça. Sketches of the buildings are made to determine the typologies of façade and the façade elements. Where the street has a high density of traditional buildings, the street is sketched as a whole. Otherwise, buildings are

sketched individually. General problems that can be detected on the façades are documented on these sketches. A list of the traditional buildings is formed. This is done in order to prepare a more detailed inscription of the buildings. This method is mostly used where the streets containing many traditional buildings could not be sketched. In most cases, only the street façades could be studied because other façades can usually be reached by passing through the building. During this study, all the streets are documented with a series of photographs. All the new and traditional buildings are photographed. Traditional buildings were photographed with as many photographs as possible in order to document the building with all its façade features and problems. The doors, windows and shutters are photographed separately.

Secondly, interior survey is carried out. In this part of the study, only the buildings that could be entered in are studied. Some houses are used either randomly or seasonally. These houses could be studied only if the owner or the dwellers could be reached. Some of the empty houses are investigated as well. Either there was a way to enter in, or the owner could be reached in these cases. In this phase, a detailed sketch of each floor was drawn, including the floor and ceiling plans. Elements like cupboards, fireplaces, interior doors, stairs, tabaklık (shelves) and connection details of doors and windows are documented in detail. Sixty buildings were included in the interior survey. Forty of these buildings are dwellings. Twenty of them are single storey commercial buildings.

After this study, it is seen that the scope of the study is again too wide to be handled within the limits of a thesis. Although it is essential to analyse a building as a whole in order to answer the needs of the house owner successfully, due to time limits, the project is limited to the doors, windows and shutters of the buildings.

The third step is to analyse the data obtained from the surveys. The data collected from the site is evaluated. As a result of this, all the types of doors, windows, shutters and various problems that they may possess are sorted. Door, window and shutter typologies are prepared. Their distribution on the site was shown on plans. The problems are grouped. The group of problems that are seen in each element are shown in plans. A list is prepared to show all this data together. It includes the address, photographs of all the façades studied, and general condition of the building, the façade type, and the location of each element on the façade and their type and their problems.

After this, problems that can be seen in each type are carefully noted down. It is seen that the frequency or the possibility that a problem will be seen in an architectural element is only affected by the material that it is made up of and the maintenance level of it. This showed that a problem could develop any time on any architectural element. Therefore, material problems are handled under the headings of the materials that they are seen; that is, problems are listed under the headings of wood and iron.

The last stage is preparing detailed drawings of the elements in order to explain how to repair the element and to give full explanation on the details of it. For this, one sample of each type is selected according to the following criteria: The element chosen is preferred to be an unchanged sample of the type in question. A very important criterion was to be able to see both sides of the element in order to be able to draw the element correctly, with all of its connection details and to be able to understand the usage problems of the element. Therefore, the types from the buildings that could be given an interior survey were preferred. These selected types are documented in detail through photographs and measured sketches. Drawings from 1/10 to 1/1 scales were prepared. Axonometric drawings of the joint details were drawn.

### 1.2.3 Preparation of the Handbook for Maintenance, Simple Repair and Intervention

All the information on the historical development of Yeni Foça, information on houses, details and technical information on techniques and materials will not take place in this handbook as a scientific output. Information will be prepared in a simple language, which can easily be understood by someone with no knowledge of architecture and construction. Photographs and diagrams will support Writings. The order of information will be prepared to follow a routine check of a house.

## CHAPTER 2

### GENERAL INFORMATION ON YENİ FOÇA

#### 2.1 Information on Traditional Buildings

Traditional buildings form the fabric of Yeni Foça, like in many historic towns. They reflect the social and economical characteristics of the town and by the technology of the time from 19<sup>th</sup> Century until today. Buildings, which were shaped according to the needs of their time, are being reshaped by their dwellers or are left to be forgotten and to vanish from the life of the town.

##### 2.1.1 General Pattern of The Town

Yeni Foça has four neighbourhoods; Atatürk, Cumhuriyet, Fatih, Fevzi Çakmak. Two of them; Atatürk and Fevzi Çakmak form the historic town. As this division is far from reflecting the changes in the pattern and every neighbourhood covers a very large area, definition of the site is made through streets. (Fig.2.1.1)

The main factors to determine the fabric of the town are the sea, commerce and olive oil factories. Organisation of streets do not form regular building lots, yet, there are no dead ends either. Main streets are perpendicular to the sea, and in this way, the breeze and the northeast wind can reach all the buildings. (Figure 2.1.2) This detail is not paid much attention in the new settlements of the town. Instead, buildings are placed parallel to the sea





Figure 2.1.2 İzmir Cadesi No:15



Figure 2.1.3 Citadel -Soylu Sokağı



Figure 2.1.6  
Merkez Caddesi no:27



Figure 2.1.5 Olive Oil Factory  
İzmir Caddesi No:39-41



Figure 2.1.4  
Orkun Sokağı No:9-13



Figure 2.1.7  
Bayraktar Sokağı No:19

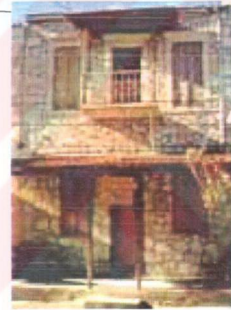


Figure 2.1.8 Restored Building  
İzmir Caddesi No:26



Figure 2.1.9 Restored Building  
İzmir Cadesi No:56

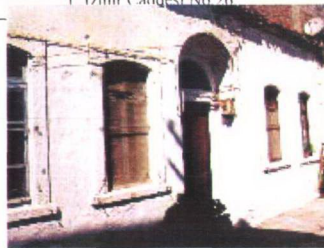


Figure 2.1.10  
Semerci Sokağı No.6



considering that it is more important to give each building equal chances to have a sea view. However, in this way, the rows at the back get very hot without the summer breeze, making it difficult to live in.

The commercial centre and its immediate surrounding are probably the oldest sections of the town. The remains of the citadel are close to the commercial centre. (Figure 2.1.3) The inhabitants state that the section around the Fatih Mosque is the Turkish settlement. The few buildings left in this section are of timber skeleton construction system. Yet, there is no way to distinguish the buildings of different social groups from each other. (Figure 2.1.4) The new mosque is located to the immediate east of the commercial centre. The church was probably in this area, according to the inhabitants.

Olive factories are located towards the south east of the town. (Figure 2.1.5) These show that olive production was once very intense and profitable in the area. Today, unfortunately, olive oil production has stopped completely. This and the fact that the monopoly of olive oil production gives very low prices for the high quality olive produced in the area, has discouraged the inhabitants to collect olive. In addition, agriculture is neglected in the area. The summerhouses, the tower houses in the Gencelli district right outside Yeni Foça are not used any more. Many have collapsed. Before, the areas around the town were fields and tower houses in the middle of them, forming a different fabric than the town itself.

### **2.1.2 General Information on the Buildings**

In this section, analysis results of the site survey on the characteristics of the buildings forming the pattern of the town, and statistical data of these results will be given.

In the site, out of 909 buildings studied, 474 are new. (Figure 2.1.11) This forms 52% of the total number of buildings. New buildings were mostly constructed recently. There are also some buildings constructed in 1960's but these are only a few. (Figure 2.1.6) The inhabitants claim that many buildings were constructed after the Independence war. Yet, as these were constructed with the traditional construction techniques and materials, they were regarded as traditional buildings.

There are 435 traditional buildings in the site, which is 48% of the buildings in the study area. Some of the buildings were grouped under the heading; restored. These buildings have been altered to a great extent, losing many of their traditional characteristics. (Figure 2.1.8) In most cases, the interior was completely demolished and a new reinforced concrete building was constructed inside the original walls. Most of them are constructed as three stories while the original building is only two storied. (Figure 2.1.9) 29 of these buildings could be detected within the study area, forming 3% of the total number of studied buildings. There are 406 traditional buildings in the site. They form 45% of the total number of the studied buildings. (Table 2.1.1)

Majority of buildings in the site are two storied. (Figure 2.1.7) 764 buildings were studied in terms of their heights. (Figure 2.1.12) 351 of them are the traditional buildings and these were studied separately as well. 617 of these buildings are two storied, and this is 80% of the total number. 122 are one storied. This is 16% of the buildings. One-storied buildings have three different height levels. Some of them have a normal floor height of around 3m. Entrance floor of some are 3-6 steps above the street level. These two types were grouped under the one-storey buildings. (Figure 2.1.10) Yet, there are some with a basement floor. These form 2% of the buildings and there are 16 of them in the site. Only traditional buildings have a basement floor within the study area. There are five two storied buildings in the site, which have a basement floor. They form 1% of the buildings. (Table 2.1.3)

In the site, out of the 351 traditional buildings studied in terms of floor heights, 93 are one storied and this is 67% of the traditional buildings. One storied buildings with basement form 5%, and two storied buildings with basement form 1% of the traditional buildings. Four buildings have a roof storey, forming 1%. There are 233 two-storied traditional buildings and are 80% of the traditional buildings. (Table 2.1.4)

There are many empty buildings in the site. (Figure 2.1.13) Most of these empty ones are traditional buildings. 83% of all the buildings in the site are used and 17% are empty. (Table 2.1.5) When the usage condition of the traditional buildings are analysed, 64% of them are used and 36% of them are empty. Some of the empty buildings are used occasionally. The owners are old and they spend most of the year with their children. In some cases, the buildings are rented during the summer season. (Table 2.1.6)

Table 2.1.1 Building Type

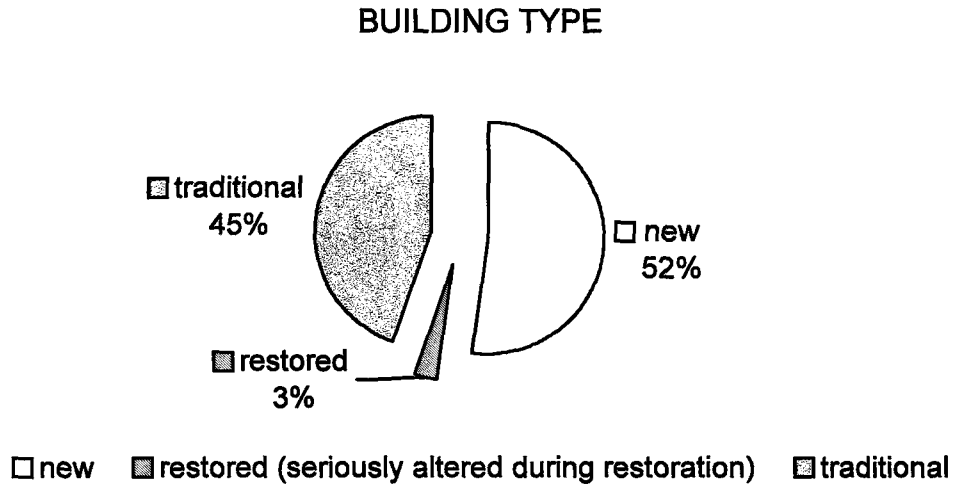
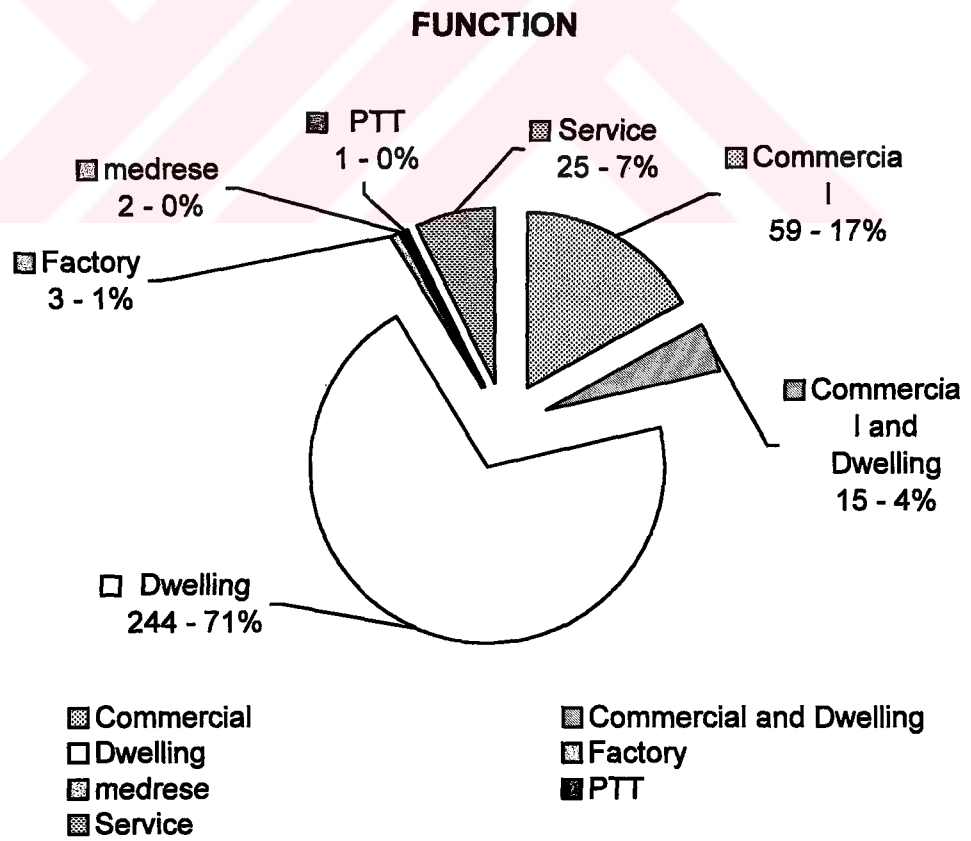


Table 2.1.2 Function of Traditional Buildings



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YENİFOÇA-LIZM**

**METU FACULTY OF ARCH  
GRADUATE PROGRAMME IN**

**PROJECT SUPERVISOR: PROF. AYSL YA  
THESIS STUDENT: F. DENİZ GÜNDÜĞÜDÜ**



**TRADITIONAL BUILDINGS**

- **TRADITIONAL BUILDING**  
Out of 800 existing buildings in the study, 267 are traditional, 533 are modern buildings.
- **RESTORED TRADITIONAL BUILDING**  
Out of 800 existing buildings in the study, 27 are traditional as a restored building, 773 are modern buildings.
- **OLD BUILDING**  
Out of 800 existing buildings in the study, 42 are traditional as a old building, 758 are modern buildings.
- **OLD BUILDING WITH A CENTRAL COURTYARD**  
Out of 800 existing buildings in the study, 62 are traditional as a old building with a central courtyard, 738 are modern buildings.
- **OLD BUILDING WITH A CENTRAL COURTYARD AND A CENTRAL SQUARE**  
Out of 800 existing buildings in the study, 113 are traditional as a old building with a central courtyard and a central square, 687 are modern buildings.
- **GREEN**  
There are 2 courtyards in the study area. One is in the old building and the other is in the modern building. The modern building was constructed by Fethi Sokak Sokak. The modern building was constructed by Fethi Sokak Sokak. The modern building was constructed by Fethi Sokak Sokak.
- **COURTYARD**  
Courtyard buildings in the study, 10 are traditional as a courtyard building, 790 are modern buildings.
- **COURTYARD WITH A CENTRAL SQUARE**  
Courtyard buildings with a central square in the study, 10 are traditional as a courtyard building with a central square, 790 are modern buildings.
- **COURTYARD WITH A CENTRAL SQUARE AND A CENTRAL SQUARE**  
Courtyard buildings with a central square and a central square in the study, 10 are traditional as a courtyard building with a central square and a central square, 790 are modern buildings.
- **COURTYARD WITH A CENTRAL SQUARE AND A CENTRAL SQUARE AND A CENTRAL SQUARE**  
Courtyard buildings with a central square and a central square and a central square in the study, 10 are traditional as a courtyard building with a central square and a central square and a central square, 790 are modern buildings.

STUDY AREA



MAINTENANCE, SIMPLE RE-  
INTERVENTION HANDBOOK  
YENİFOÇA-İZMİR

METU FACULTY OF ARCHITECTURE  
GRADUATE PROGRAMME IN F

PROJECT SUPERVISOR: PROF. AYŞIL YAVUZ

THESIS STUDENT: F. DENİZ GÜNDOĞDU

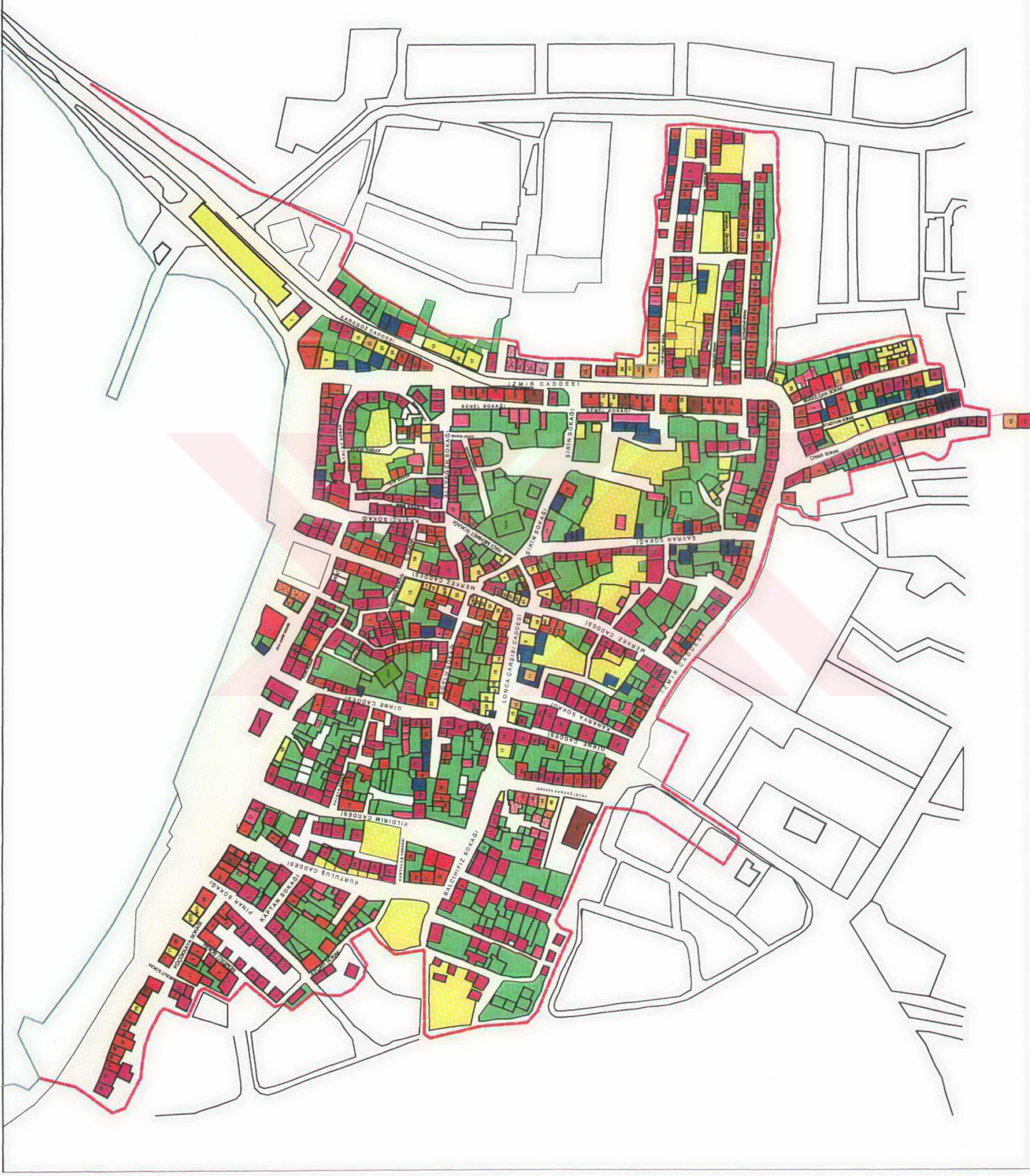
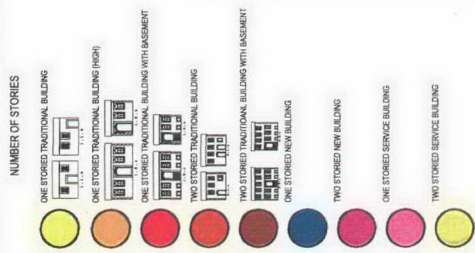


Table 2.1.3 Number of stories of Traditional and New Buildings

**NUMBER OF STORIES  
(WHOLE SITE)**

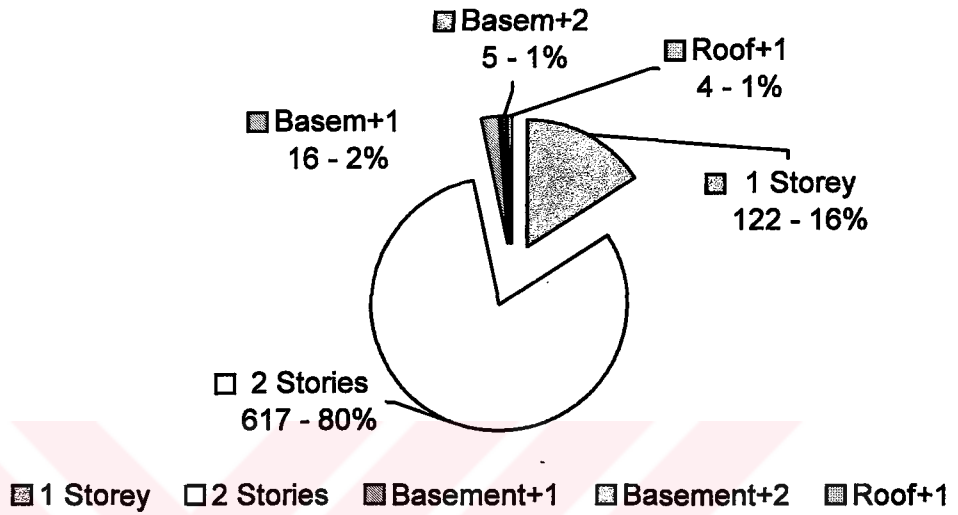


Table 2.1.4 Number of stories of Traditional Buildings

**NUMBER OF STORIES  
(TRADITIONAL BUILDINGS)**

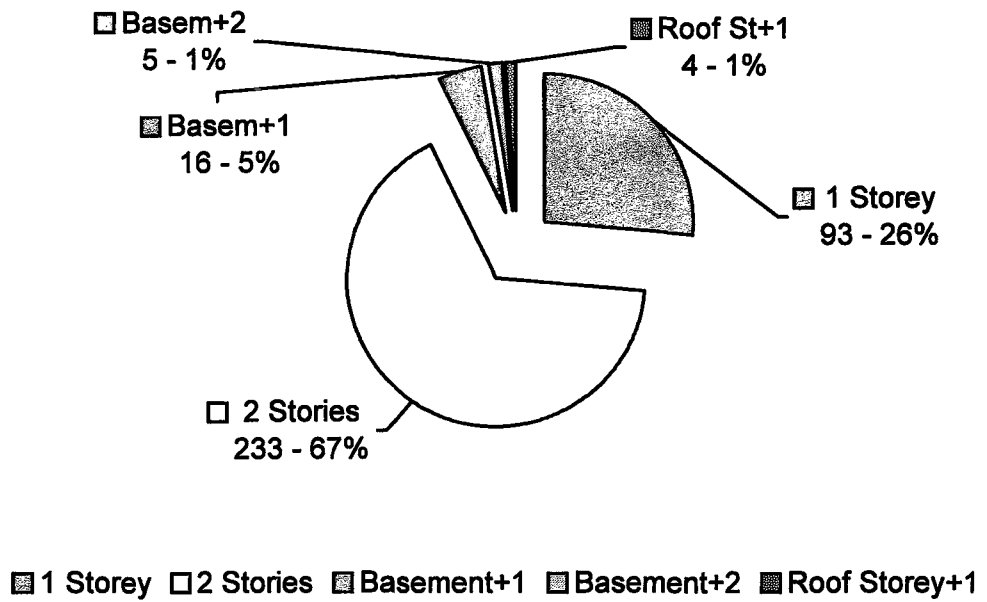
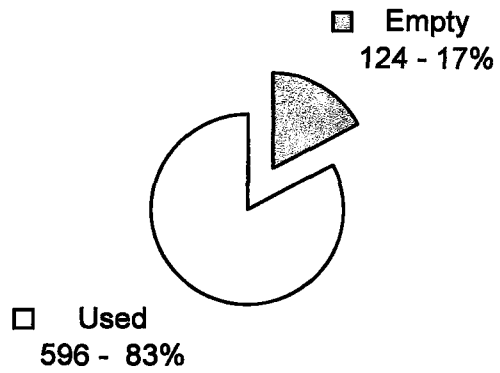


Table 2.1.5 Use of Traditional and New Buildings

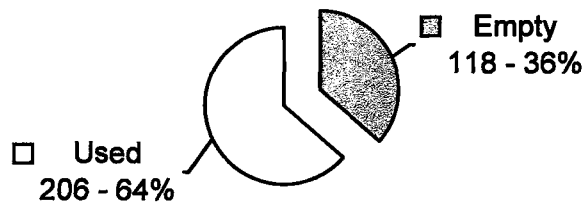
### USAGE OF BUILDINGS (WHOLE SITE)



■ Empty    □ Used

Table 2.1.6 Use of Traditional Buildings

### USAGE OF BUILDINGS (TRADITIONAL BUILDINGS)



■ Empty    □ Used



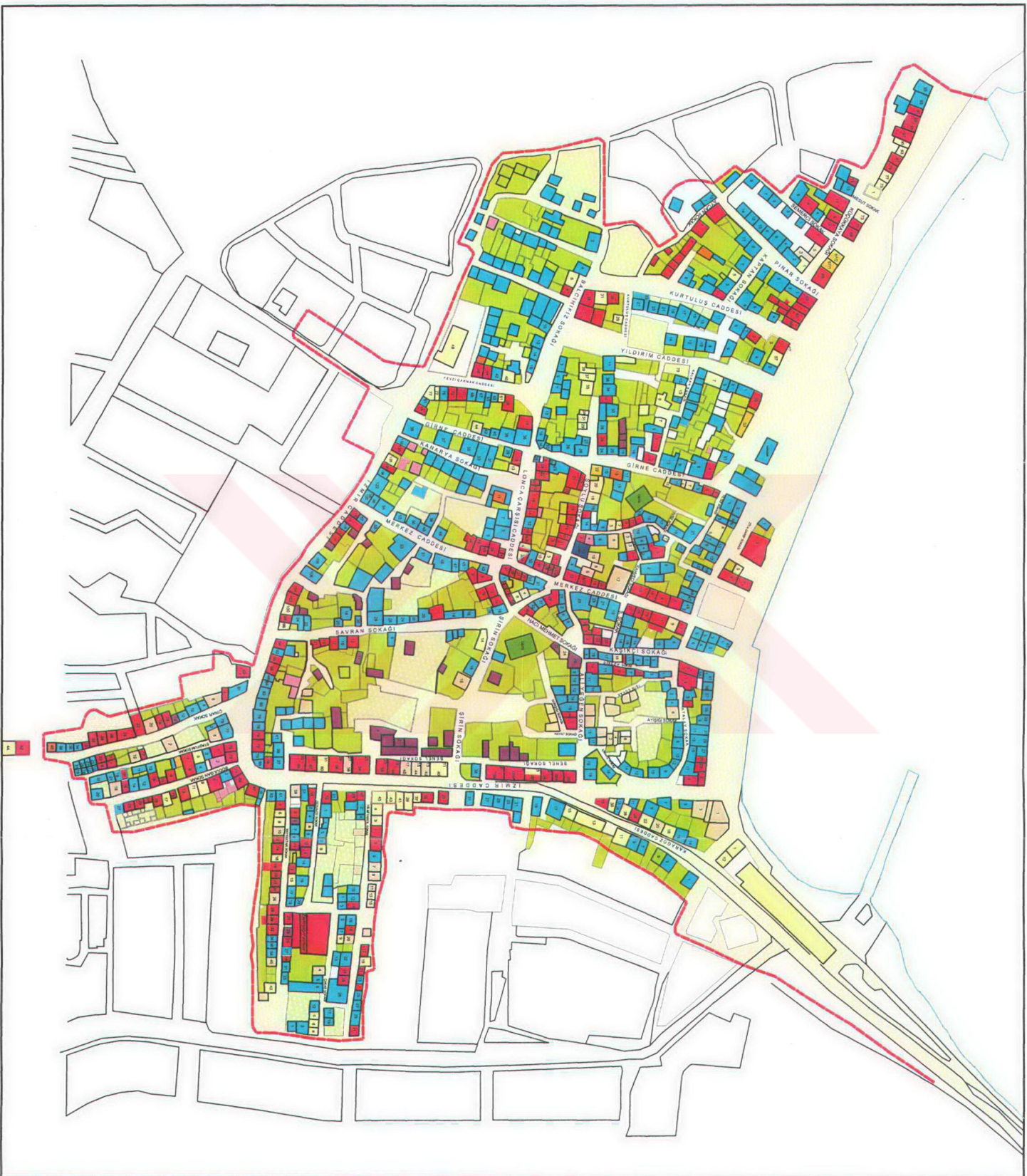
MAINTENANCE, SIMPLE 1  
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METU FACULTY OF ARCHITECTURE  
GRADUATE PROGRAMME IN

PROJECT SUPERVISOR: PROF. AYŞILYA  
THESSIS STUDENT: F. DENİZ GÜNDOĞDU

USAGE

- USED TRADITIONAL BUILDING
  - EMPTY TRADITIONAL BUILDING
  - COLOURED BUILDING
  - SERVICE BUILDING
  - NEW BUILDING
  - MODULAR
  - COVERTING
  - GREEN
  - GLAZING
- STUDY AREA

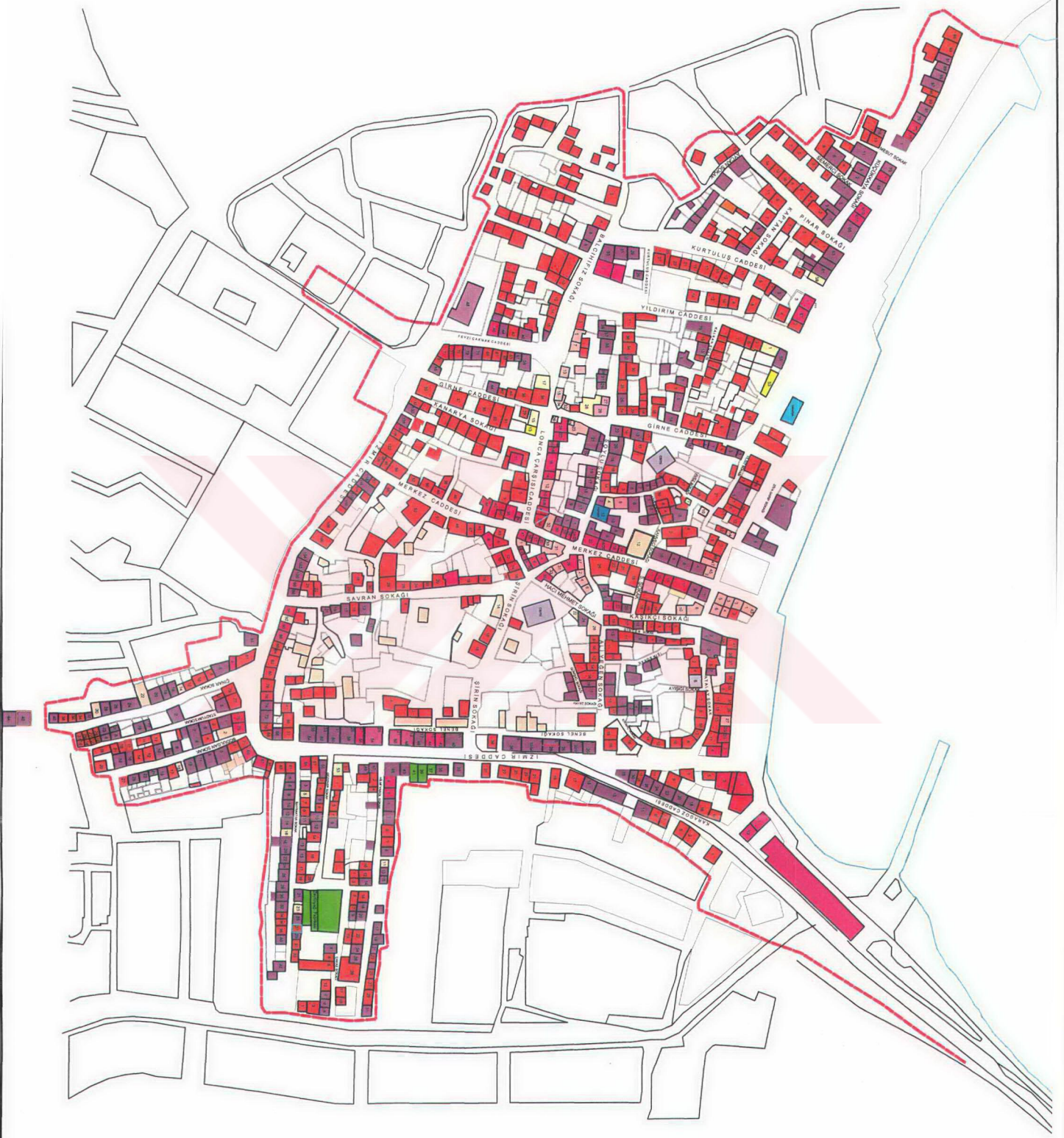


MAINTENANCE, SIMPLE RE-  
INTERVENTION HANDBOC  
YENİFOÇA – İZMİR

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PROJECT SUPERVISOR PROF. AYŞIL YAVUZ

THESIS STUDENT: F. DENİZ GÜNDOĞDU



- FUNCTION
- TRADITIONAL DWELING
  - TRADITIONAL COMMERCIAL BUILDING
  - TRADITIONAL DWELING AND COMMERCIAL BUILDING I
  - TRADITIONAL RESIDENCE AND COMMERCIAL BUILDING II
  - SCHOOL
  - HAMMAM
  - KAHVE
  - OLIVE OIL FACTORY
  - MOSQUE
  - SERVICE BUILDING
  - RESTAURANT
  - PENSION
  - MEMBER
  - NEW DWELING
  - NEW COMMERCIAL BUILDING
  - NEW DWELING AND COMMERCIAL BUILDING
  - COURTYARD
- STUDY AREA



## 2.2 Architectural Characteristics,

Buildings in the Historic area are mostly of stone, reflecting the typical façade characteristics of XIX<sup>th</sup> Century coastal Aegean buildings. There are buildings, which have projections and are of timber skeleton walls with stone infill. These are probably older buildings left in the site. There is a little possibility that some of the stone buildings in this particular area were constructed as fires have destroyed wooden skeleton buildings. Yet, when we consider the two stone quarries in the region, we can also say that stone massive buildings did exist before. It is difficult to say anything about this before a detailed study on the matter.

Because stone masonry buildings are the typical buildings in the area, the study was carried out mostly based on these. The buildings are one or two storied. Stone lintels around the windows and doors are the most common characteristics observed. Although many of them were flat roofed originally, due to maintenance problems, a pitched roof was added to them. According to the inhabitants, majority of the buildings originally have no plaster. This is proven by analysing the quality of the stone bonding. There are few façades of fine cut stone. All of these are commercial buildings. There are many other buildings with roughly cut, regular bonded stone façades. There are some unplastered buildings with roughly bonded walls but these are only a few.

The ground storeys of the dwellings are usually used for storage or commercial purposes. There are many samples where a sitting room is located at the front façade, next to the entrance. In the upper storey in many examples there is a room used as a kitchen. In this room, there is a window with its sill carved as a sink. There may be a stove in the room. Yet, in many cases, an oven is situated in the courtyard. In addition, in many of the buildings, there is a small well, whose opening is closed by a flat and round stone. The well is found either in the courtyard or very rarely, in the

building. Because of the thick walls, there is neither weather nor sound insulation problem. In the hot summers of the region, interiors are always cool. In winters, interiors can be heated easily with little energy consumption. Through the big windows in the upper stories, rooms are well illuminated. The ground floor is suitable for addition of wet spaces. In many houses, an addition to the courtyard for wet spaces is constructed. This shows that with little intervention to the plan type, majority of the buildings can be reorganised as suiting to contemporary standards of living sufficient dwelling.

There are inscriptions on the door lintels of some buildings, especially in the area around the olive oil factories. In these inscription panels, also the construction dates of the buildings are inscribed. The oldest house that could be detected, İzmir Caddesi no: 86, was from 1853. In one of the houses, Ziya Garip Sokağı no:8/Yıldız Sokağı No: 5, on the beams the date 1910 was written, giving the latest date on the site. Therefore, we can say that the present texture can be dated to second half of the XIX<sup>th</sup> and early XX<sup>th</sup> century.

From the remaining pavements of some streets, it is seen that the original street pavement is roughly shaped granite, which is a very hard stone. In İzmir Caddesi, the old sewer channels, which are still used today, are seen. The inhabitants give the information that this system serves İzmir Caddesi, Bodulgan Sokağı, Çınar Sokağı, Stadyum Sokağı, and Bayraktar Sokağı, Hilmi Varol Sokağı, Gezener Sokağı and Çakas Sokağı. Where the original pavement could be seen, it is detected that the street levels were risen 70-100 cm. all over Yeni Foça.

The district that is formed by three parallel streets; Bodulgan Sokağı, Çınar Sokağı, Stadyum Sokağı is referred to as "Papaz Mahallesi."<sup>1</sup> (Figure 2.2.12, 2.2.14) In the majority of the buildings, the courtyards are located at the back of the houses, while in some of them they are located in the front of

the houses. There is a third group, where there is no courtyard. Two examples to this type are situated somehow separately from the other houses. They are twin houses. Their courtyards were probably demolished, but there were no signs of a courtyard or possible houses in between these and the other houses could be detected.

There are single storied shops and a kahvehane (coffee house). There was no mixed use originally. However, two of the shops have floor additions at the top, which are used as residences today. Most of the houses are stone load bearing structures. One commercial building in Çınar Sokağı has timber frame upper structure above stone load bearing entrance floor. It is difficult to detect the construction system of this building from exterior as it had been plastered. The owner of the house has given the construction date to be 1884.

Houses usually give a narrow façade to the street, and they are usually square planned. Majority of the two storied buildings has three or less windows on the street façade. This shows that houses do not usually have more than three rooms on the upper story. Majority of the houses have entrances to the side of the building, while some of them have entrances in the centre. Usually, the houses do not have elevated entrances. Four two storied buildings have entrance on the second floor level reached by stairs. Two single storied buildings have stepped entrances. In either case, stairs do not exceed the plane of the street façade.

There are 14 two storied and three single storied houses in the area. Three of the two storied houses have central entrances and central circulation areas. Majority of the buildings have staircase and circulation area at the back, and their courtyard is at the back. Originally, most wet spaces were located in the courtyard. Only five houses have original spaces for kitchen and bath. Three of these have no courtyard. Living and sleeping rooms of these houses are usually very small and number of rooms in two storied



Figure 2.2.1 Hayat Sokağı No:1

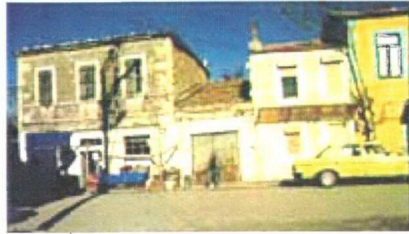


Figure 2.2.2  
İzmir Caddesi No:88-94



Figure 2.2.3  
İzmir Caddesi No:75-77



Figure 2.2.4  
Fevzi Çakmak Caddesi No:71-75



Figure 2.2.5  
Merkez Caddesi No:7-9

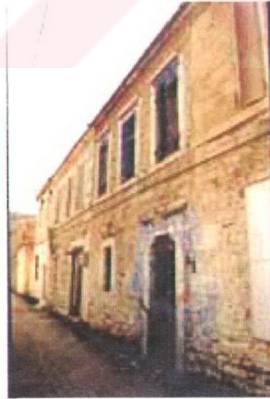


Figure 2.2.6  
Bayraktar Sokağı No:16



Figure 2.2.7  
Benel Sokağı No:3



Figure 2.2.8  
Lonca Çarşısı Caddesi No:28



Figure 2.2.9  
Günışığı Sokağı No:2-6



Figure 2.2.10  
Ziya Garip Sokağı No:8



Figure 2.2.11  
Girne Caddesi No:11



Figure 2.2.12  
Karagöz Sokağı No:24-30

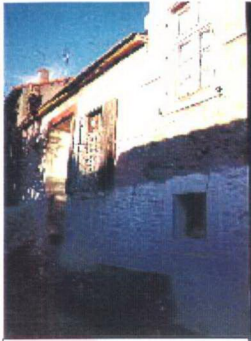


Figure 2.2.13  
Benel Sokağı No:19



Figure 2.2.14  
Benel Sokağı No:1

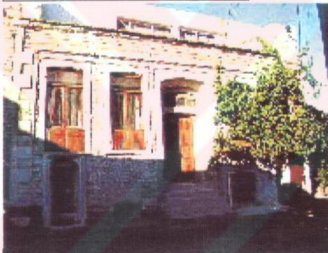


Figure 2.2.15  
Balcı Hıfız Caddesi No:1



Figure 2.2.16  
Çınar Sokağı No:30-34



Figure 2.2.17  
Balcı Hıfız Caddesi No:22-30



Figure 2.2.18  
Çınar Sokağı No:19





Figure 2.2.19 Lonca Çarşısı Caddesi



Figure 2.2.20  
Lonca Çarşısı Caddesi No:2-8



Figure 2.2.21  
Sahil Caddesi No:63

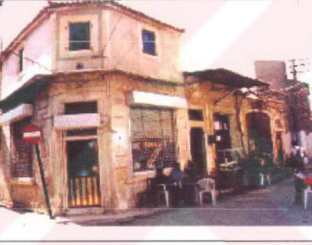


Figure 2.2.22 Şirin Sokağı No:8-10



Figure 2.2.23  
Orkun Sokağı No:13



Figure 2.2.24  
Orkun Sokağı . No:11-13



Figure 2.2.25  
Orkun Sokağı . No:9

buildings is usually 3-4. The ground floors of the two storied houses and the basements of single storied houses are used as storage areas. <sup>1</sup>

All single storied houses and the majority of two storied houses have side entrances. Some of the houses have a second entrance, which are usually used for commercial purposes. In some cases, there may be a separate entrance for the courtyard as well. It was observed that these courtyard All of the single storied houses and the majority of two storied houses have side entrances. Some of the houses have a second entrance, which are usually used for commercial purposes. In some cases, there may be a separate doors are not original. Secondary doors of the houses are usually lower than the main door, and entrance from these doors is always from the street level.

Four parallel streets, namely, Hilmi Varol Sokağı, Gezener Sokağı, Çakas Sokağı and Bayraktar Sokağı located to the south east of the site form another zone. Çakas Sokağı has no access to İzmir Caddesi. In this area, the streets are quite narrow, around 3-3.5m. There are three olive oil factories in the district and non-are in function today. Two are empty. The third one is a big complex situated towards the end of the district. It is used as furniture workshops and factory today. (Figure 2.2.6)

The number of ruined or empty houses is considerable in the area. New houses are dense in especially Gezener Sokağı and Çakas Sokağı. Yet, as the streets are quite long, around 150m, the texture is still conceivable. The streets were paved by cobblestones. The most important problem of the area is the humidity caused by the drastic street level change. So, many cannot use their houses in winters.

All the houses in this district are two storied and they have very similar architectural features. Many of the row houses were constructed either together or with very short intervals. The floor and window levels are usually the same. They are all residential buildings. The ground floors of these

houses were used for storage and living. There is a sitting room, elevated from the ground level in majority of the houses. In some, behind the room, a specialised section for storage was placed. This place can have an entrance with a door, or a small entrance where the space can be accessed bending down only. In one case, posts have defined the space only. The houses located at the outer wings of the district have courtyards. Here, toilet spaces are seen. Yet, in the used houses, toilet and kitchen was added in the ground floor. Many houses have original toilets in the ground floor, mostly under the staircase. These houses are small and on the first floor, there are 2-3 small rooms.

İzmir Caddesi, Karagöz Caddesi and Fevzi Çakmak Caddesi are taken to be the third district. İzmir Caddesi is one of the main streets of Yeni Foça, and it is the longest street. (Figure 2.2.2 and 2.2.3) It starts perpendicular to the sea, continues until it reaches Papaz Mahallesi, and here turns 90°, parallel to the sea. It forms a boundary on the east side and most of the south side of the historic settlement. A short section of Karagöz Caddesi too was included in this district as it has same architectural features. This Caddesi diverges from İzmir Caddesi, forming a building island. The selected section is limited to this island and opposite sides. It has asphalt paving. Sidewalks were created, in some places obstructed by the original side pavements. This district too has street elevation problems. Basements of houses are not usable today, and the water in these spaces is harmful to the structure.

Houses in Karagöz Caddesi are mostly in good condition. (Figure 2.2.12) New buildings are rare. The houses are not in use generally, as their owners have passed away recently and probably the inheritors are not planning to move in. There are three types of buildings here. First type has most probably been used for production but now they are used as residence. Structurally, it is a single building, but there are three dwellings in it today. They are empty. It has one story and this floor is not elevated from the street unlike the other single storied buildings.

The other type consists of single or two storied buildings. These houses are rich and large houses, like most of the houses in İzmir Caddesi. They have elaborated entrances, and only two of them are in use. One of them has a traditional storage building next to it instead of a courtyard and the owner of the second one has constructed a new house for his son in the courtyard, living only a small part, which is used as an entrance to the both buildings from İzmir Caddesi. The third type consists of two, single storied commercial buildings, situated right at the end of the settlement, just before the fish market.

İzmir Caddesi, due to its length, has a more heterogeneous formation. Although the architectural characteristics are more or less similar, because of the change of street formation, it can be analysed in two sections. First section is the arm that is perpendicular to the sea. The east side of the street has quite a loose pattern and it has a considerable number of new buildings. Some very peculiar houses were pulled down while looking for treasure. Here, there are three buildings belonging to the old olive oil factories, and right at the turn of the street, there are single storied workshops, a kahve and two storied shops, whose second floors are later additions. There is also a building with very particular stone bonding. It is used as a residence today but it was originally a "kahve". Its land area is very small. Its first floor was probably used by single workers, as was mentioned in the second chapter. Some of the buildings have a front garden or courtyard. Either others have courtyards at the back, or new buildings were constructed where they had courtyards once.

The west side of İzmir Caddesi was more protected, at least on the bases of façades. There are single or two storied buildings, which are large dwellings when whole of Yeni Foça is considered. Many types can be observed on this side; two-storied building with basement, two storied without basement, single storied with basement. Many of them are unused today. One single storied house has a large storage zone on its side. The space above this is

used as the attic and can be accessed from the house. According to the dwellers, there is an access to this area from the basement as well but the basement is completely flooded today. So, the entrances from the 30<sup>th</sup> Sokak and from Benel Sokađı into the basement are not used today. A two-storied building has signs that side of it was used as a shop. The owners have altered it and are using it as a sitting room today.

There is a narrow street, Benel Sokađı passing from just behind the buildings and on the other side of the street; there are traditional service buildings and gardens. (Figure 2.2.7, 2.2.13, and 2.2.14) These belong to the buildings opposite to them. In some, new buildings are constructed and some of the service buildings were altered for residential use. There is no clear evidence, but from the pavement of the street, it can be deduced that the street was opened, destroying the courtyards of the houses. The probable sequence is; house, courtyard that is paved with regular cut kayrak stone, garden. During the studies, it is found out that two dwellers have not built any new buildings to this area and that they are still cultivating the garden for their own use.

The south arm of the street has mostly lost its identity. On the south side, there are only two traditional and two new shops, a storage building that is two stories high, and a two storied house without basement. The remaining area had been covered with fields whereas today it was planned as play zones, green area and new building zones.

The west arm of the street has quite a number of new buildings. As the traditional buildings were left in a row, and there is a green area right opposite them, the traditional pattern is still not lost completely. There are two storied residences and two storied shops in this area. Some of the residences are much too small and these too may were shops in the past. Most of the buildings have a courtyard at the back. Some even have small gardens. Nevertheless, the pattern was destroyed to a great extend by new buildings.

Fevzi Çakmak Sokağı was preserved to a great extent. (Figure 2.2.4) On its intersection with İzmir Caddesi, there is the old Primary school building, which is in a very poor condition structurally. The building belongs to the municipality. They are planning to reconstruct it to be used as a hotel. The project is in suspension as the preservation council has disapproved it. There are single storied buildings with basement and two storied buildings on this street. There is also a shop, which is used by the electric establishment (ESHOT) today. All the buildings have a courtyard at the back. Except for the ESHOT building, all the traditional buildings are unused today. There are two new buildings, whose entrance floors are used as shops and upper floors as residence.

The fourth district is the commercial zone of Yeni Foça. It is located in the centre of the town. It includes Merkez Caddesi partially, (Figure 2.2.5) Loncaçarşısı Caddesi (Figure 2.2.8, 2.2.19, 2.2.20), Soylu Sokağı, Aliyeğen Sokağı partially, Hacı Mehmet Sokağı, Şirin Sokağı, (Figure 2.2.22) and Girne Caddesi partially (Figure 2.2.11). The shops may be single storied, located below a residence either covering the whole floor or one side of the building, two storied where there is a small room in the first floor. There is a "Hamam"; bathhouse in Soylu Sokağı, which is in ruins today. There is another one in Girne Sokağı and is used as a restaurant today. There is also a closed theatre building on Merkez Caddesi. There are two storied residences in the area. There are also two Turkish houses, as defined by the inhabitants, in Merkez Caddesi. One was altered completely, joined to the building behind it and is used as a pension today. The other is in a very good condition but is unused.

The fifth district is the Turkish settlement located around the Fatih Mosque, which was constructed originally by Mehmet II (Fatih Sultan Mehmet-Mehmet the conqueror). It is referred to as the old mosque today. Only a small portion of this area remains today. There are only six traditional buildings in the district, all of which show complete residential characteristics.

(Figure 2.2.23-2.2.24- 2.2.25) They were constructed by timber frame construction system over stone entrance floor walls. They are all very small houses. Two are being used today. One of them was altered completely. The other is in a very bad condition. It has no kitchen or bathroom. It has no significant architectural elements. Five buildings are adjacent to each other. They may were divided from two houses, as the information given is that they used to belong to one single family. The fact that the surveyed building was too small for residential use increases the suspicions in this way.

The sixth district is the seaside and the streets right behind it; Sahil Caddesi, Kordon Caddesi, Ziya Garip Sokağı (Figure 2.2.10), Yıldız Sokağı, and Küçükkaptan Sokağı, Kurtuluş Sokağı and Balcı Hıfız Sokağı (Figure 2.2.15-2.2.17) Buildings lining the Sahil Caddesi have mostly protected their exterior walls. (Figure 2.2.21) According to the conservation planning, construct a new building within the outer walls, conserving the façade characteristics is permitted. Yet, due to the touristic nature of this zone, traditional buildings are mostly covered by signs and tents, losing their identity. Just behind this street, traditional pattern continues but after this and at the west end of the Sahil Street, traditional pattern is totally lost. Moreover, after this point, new housing starts.

### 2.3. Construction Techniques

The main type of element used in construction in Yeni Foça is stone. As mentioned above, it is quarried from mountains nearby. There are three types of wall construction techniques. The first type is used in courtyard walls and service buildings. Rough shaped stones are coursed with an irregular bonding.

Second type is the most common construction technique in the town. Stones are roughly shaped into rectangular long pieces and are bonded regularly in

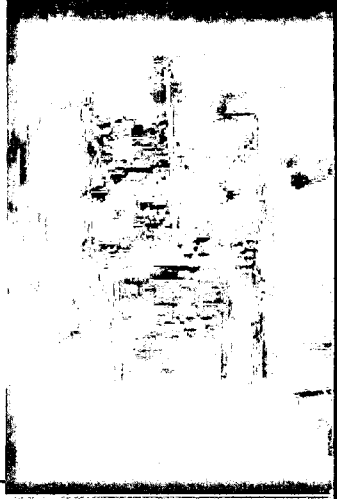


Figure 2.3.1 İzmir Caddesi No:1  
Construction Technique of ground floor inner walls.



Figure 2.3.2 Orkun Sokağı  
No:9 Example of Wooden  
Skeleton Construction System



Figure 2.3.3 Soylu Sokağı No: 26



Figure 2.3.4 İzmir Caddesi No:54  
A roof of a roof storeyed building



Figure 2.3.5 İzmir Caddesi No:1  
Construction Technique of upper  
inner walls.

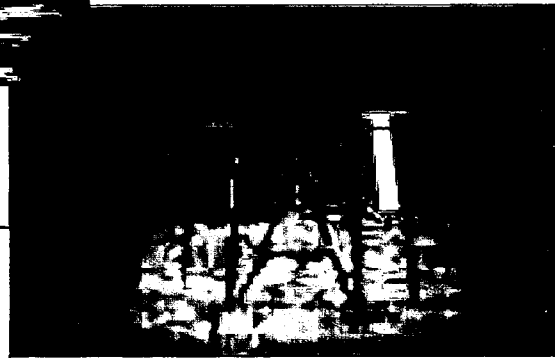


Figure 2.3.6 Çınar Sokağı no:4 .  
Example of the Third Type of Construction  
Technique.



fine coursing. The most common bonding technique is coursing small stones around a big stone, increasing friction and thus stability. Third type is usually observed in non-dwelling units like kahve (coffee house). Fine cut stone is coursed regularly in this type. In none of the bonding techniques, horizontal timber elements are visible from the exterior. Main beams are embedded in the wall in two sides and in the other two walls, where the beams rest; another horizontal thick element is used for support. Except in the wooden skeleton houses near the mosque, stonewalls continue till the roof. In the roof, as observed from the existing flat roofs and according to the information given, it continues for around 60-100 cm. after the roof slab. For water insulation, the roof is filled with alum mixed clay (yağlı toprak/geren) in many layers and is pressed. Cylindrical stones with square holes on both sides, which are used for pressing, can still be seen in the courtyards of many houses. (Figure 2.3.3 –2.3.4)

In all buildings, whatever the construction system is, there are quoin stones on the sides. These stones are common on adjoining buildings. This wall is common in adjoining buildings. There are many examples in of Yeni Foça and in Eski Foça, where the quoin of the sides was left exposed for the neighbouring building to be constructed. There is also a possibility that the observed examples were constructed together with the building next to them.

The first and second construction systems could only be inspected roughly. In the first system, a thick wall is constructed with flattish rectangular stones. (Figure 2.3.3) Stone sizes get smaller as the wall goes up. Usually, bigger stones are surrounded by smaller stones. Interior walls are of wooden skeleton system. This is the most common construction technique in the area.

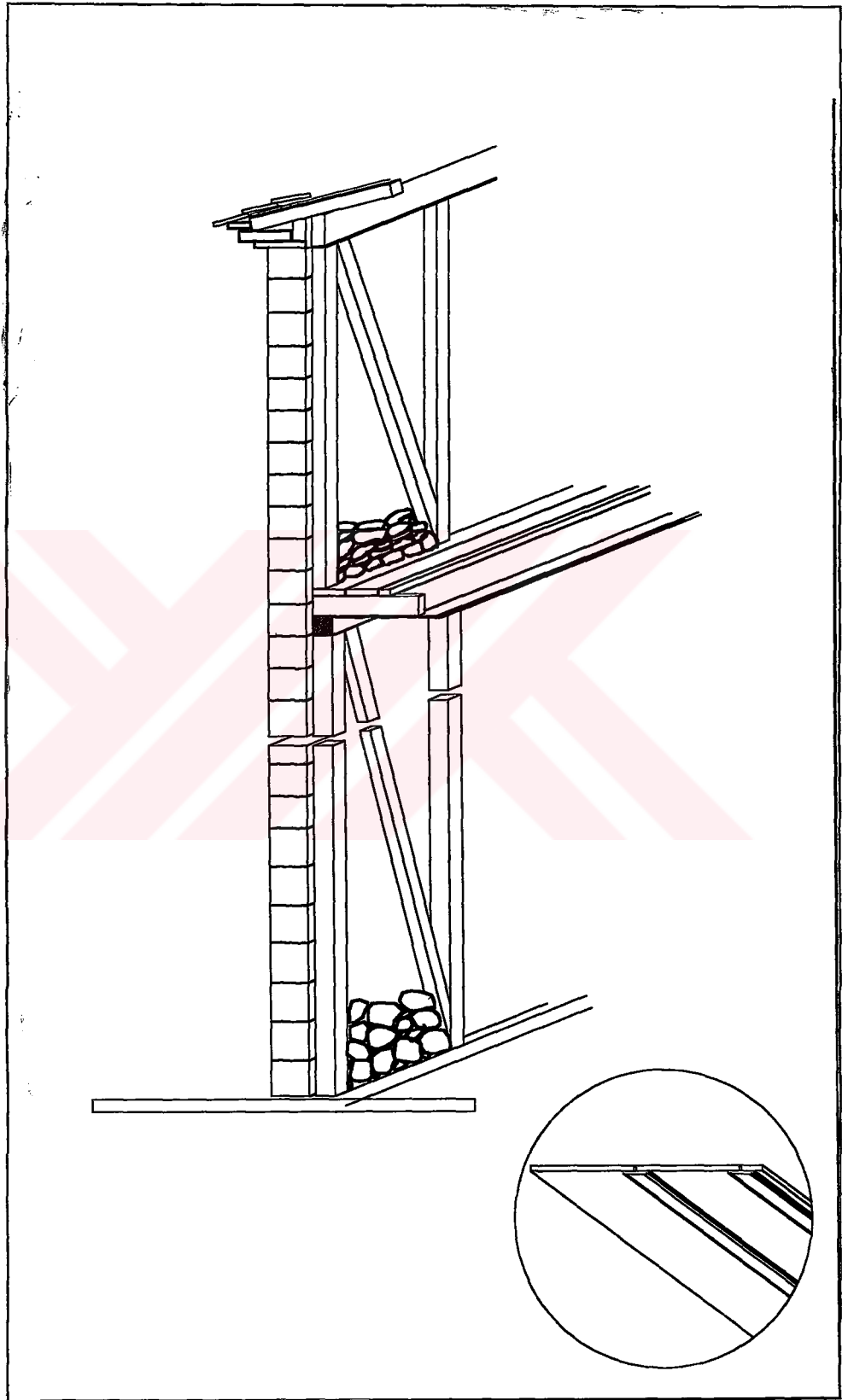


Figure 2.3.7 Construction Detail of Third Type Construction System

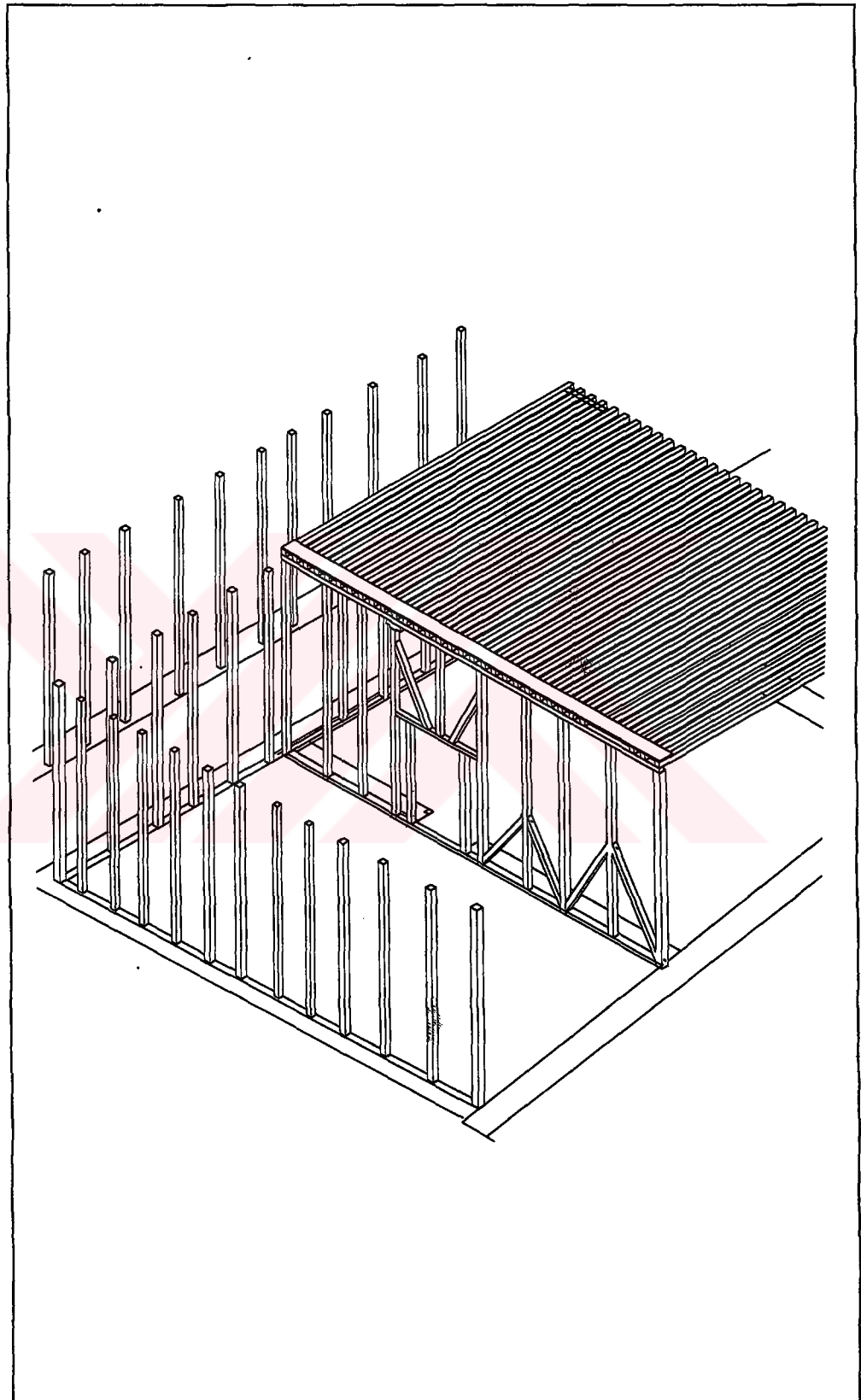


Figure 2.3.8 3D Modelling of the Third Type Construction System

Second system is wooden skeleton system second floor over stone load bearing ground floor walls. (Figure 2.3.2) It is mostly observed around the Fatih Mosque, in Orkun Sokađi.

In the third construction system mentioned in the above section, there is a special construction style. (Figure 2.3.1-2.3.5-2.3.6) These walls consist of two sections. The main part of the wall is of timber frame and is on the inner side of the wall. It has a thickness of about fifteen cm. Main studs used in the skeleton system of these walls have cross-sections of fourteen to fifteen cm. Bracings and intermediary studs have cross section of ten to twelve cm. In the wooden elements, all joints were fastened by nails as could be observed from a single building. No special joint detail could be detected. The infill is of rubble stone of small pieces, around a radius of five to ten cm. On the exterior, there is a stonewall, which can be called a cladding wall. The thickness of this wall is around thirty cm. It is of fine cut or rough cut, regular bonded stone. Mud mortar is used as a bonding agent in both walls. In many cases, small stones or brick are placed around these stones to increase bonding capacity of mud mortar used. In some examples, decorative use of this technique can be observed. The interior walls in the ground floor have infill of rubble stone. The upper timber frame walls have infill of stone of smaller radius. On the inside, lathes are used for plastering over. In the interior walls, "bađdadi" infill technique is observed. (Figure 2.3.1-2.3.5)

The exterior wall is left either exposed or plastered by mud plaster. The inner side of the wall is plastered by either mud plaster or by lime plaster. Examples where the rough plaster is of mud and fine plaster is of lime are seen.

Windows and doors are framed by monolithic stone lintels and jambs. The thickness of these blocks varies between 10 to 15 cm. There are no decorations on them, except for the chiselled band in the middle. The width

of this band varies with the width of the stone, but the space on the sides is always around 1 cm. On the windows, stone blocks have an indentation of about 1 cm, which was left for the shutter. In this way, shutter does not make a projection on the surface of the building. The hinges (kuşluk) are trusted into the jambs. Lintels and jambs may be on the same surface as the wall, or may be projecting out for around one centimetre or less. No correlation with this and the surface being plastered or not could be detected.

#### 2.4. Structural Condition

*In this section, the structural and material condition of traditional buildings is given. In the majority of the buildings, their structural condition could only be evaluated through exterior survey. After the survey in the area, data about the structural condition is evaluated under five groups. (Table 2.4.1) The data that is processed for this grouping are any cracks in the walls, condition of façade elements, interior survey of some buildings, and information gathered from the dwellers about the repair history of the buildings.*

First group consist of buildings with no visible material or structural problems. All of the restored buildings are under this heading. 131 buildings out of 363 buildings that are included in this survey are in this group. This means 36% of the traditional buildings are thought to be in excellent condition. These buildings might have some problems that could not be detected from the exterior survey. Therefore, owners of these buildings should make a thorough check-up to be sure about the condition of their buildings.

There are 75 buildings in the second group. This is 21% of the traditional buildings. Buildings in this group have slight problems like erosion of paint.

Most of them have humidification marks in the lower part of their walls they have no visible structural or material problems.

Third group consists of buildings with slight material problems like fiberization of wooden elements, slight surface rusting of iron elements, etc. They have no visible structural problems. There are 63 buildings in this group forming 17% of the traditional buildings.

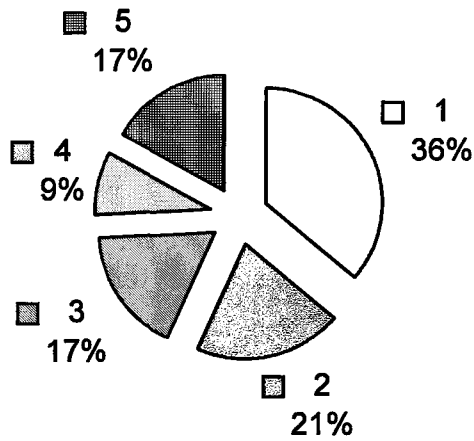
In the fourth group, there are buildings with serious material problems and slight structural problems. Serious material problems are insect, fungi and decay in wood, deep rust in iron, and material loss. There are slight cracks in the walls that may be a sign of structural settlements. There are 32 buildings in this group, forming 9% of the traditional buildings.

In the fifth group, there are collapsed buildings. Buildings, which were collapsed completely, buildings with roof collapse and those with collapsed areas in the floor are included in this group. In the study area, there 62 buildings in this condition and this forms 17% of the traditional buildings.

The condition of plaster of the traditional buildings is also analysed. (Table 2.4.2) First groups of buildings have no plaster originally. There are 190 buildings in this condition and this are 53% of the traditional buildings. There are 20 buildings, which have no problems in their plasters. So, there 6% of traditional buildings are in the second group. In the third group of buildings, there are cracks and partial material loss. There are 45 buildings in this group and 13% of traditional buildings are in this condition. Buildings with serious plaster problems are in fourth group. There are 34 buildings in this group forming 10% of the traditional buildings. The fifth group of buildings have concrete cement. 18% percent of traditional buildings have concrete plaster.

Table 2.4.1 Structural Condition of Traditional Buildings

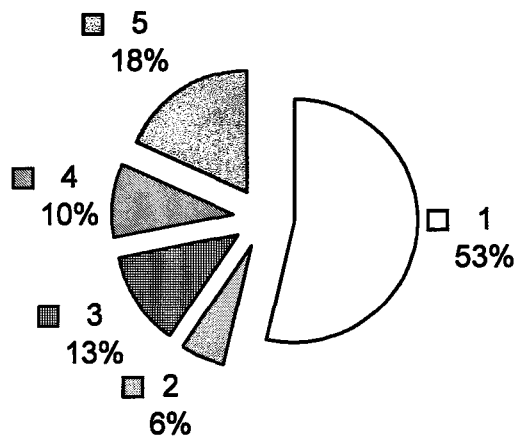
**STRUCTURAL CONDITION**



- 1 Well Maintained
- ▨ 2 Needs Maintenance and Some Repair
- ▩ 3 Material Problems, Needs Repair
- ▧ 4 Slight Structural and Serious Material Problems
- ▦ 5 Collapsed (Between Total Collapse and Partial Roof Collapse)

Table 2.4.2 Condition of Plaster in Traditional Buildings

**CONDITION OF PLASTER**



- 1-Originally No Plaster
- ▨ 2-Plaster in Good Condition
- ▩ 3-Slight cracks and Loss
- ▧ 4-Serious Plaster Loss
- ▦ 5-Concrete Plaster

## CHAPTER 3

### GENERAL ANALYSIS OF FAÇADE ELEMENTS

#### 3.1 Façade Typology

Although the façades of the traditional buildings in the area show many common features, they show quite a lot of variety according to their window and door arrangement. They all have common features as the quoin stones, stone façades, and door and window lintels.

Two systems are used for the preparation of the façade typology. These two systems were combined. Their distribution in the area is shown according to this joint system (Figure 3.1.3)

In the first system, the height of the building, number of stories, existence of a basement, location of the door are taken into consideration. (Figure 3.1.1) For this, a three digit system is used (x.x.x). The first digit shows the number of stories. The second digit shows the height of the building, existence of a basement floor, and whether the entrance is only a shop entrance or not. The last digit indicates the location of the door. There are two possibilities. The door may be located at the side or in the middle of the building. (Table 3.1.1) This system gives us twelve headings. All these types exist in the area. Yet, some of them are not shown in the table due to the fact that some buildings may have two or three entrance façades and only one of them is taken for the preparation of the tables.





Figure 3.1.1 Façade typology

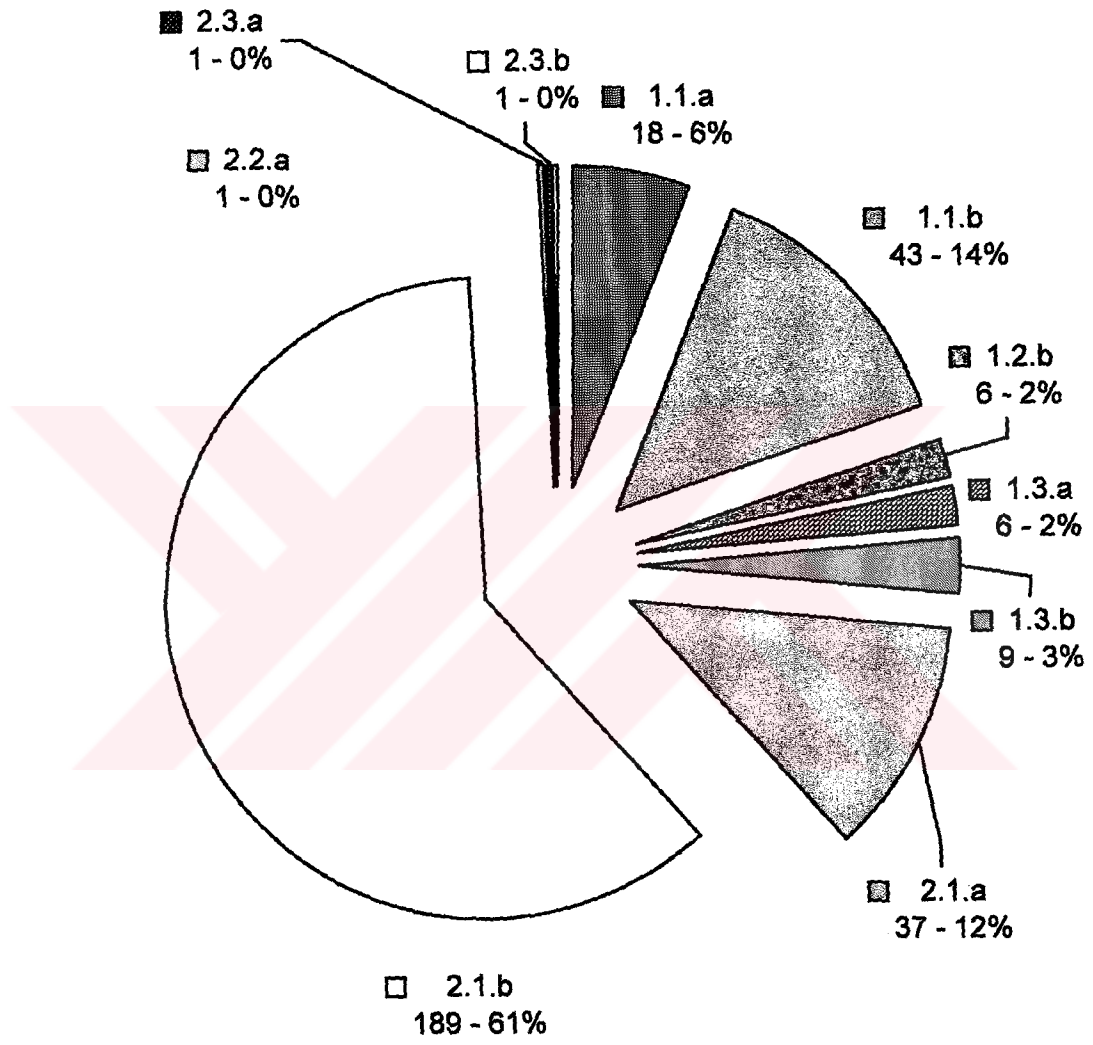


Figure 3.1.2 Façade Typology



Table 3.1.1 Façade Typology I

FAÇADE TYPOLOGY I



- 1.1.a
- 1.1.b
- 1.2.b
- 1.3.a
- 1.3.b
- 2.1.a
- 2.1.b
- 2.2.a
- 2.3.a
- 2.3.b



The second system shows additional elements to the façade. (Figure 3.1.2) These elements are; roof window, service door, balcony, shop door, storage door and shop façade arrangement. This was organised like this because these elements may exist in any one of the twelve types above, and sometimes these elements can be seen together in one façade. (Table 3.1.2) So, each element was given a number. These numbers are added after the three digits of the first system.

### 3.2 Door

Door typologies in the study area are prepared according to their materials. (Figure 3.2.3) There are two main headings; wooden doors and metal doors. Doors are analysed according to their wings, Proportion of divisions, and details under both headings. The details may differ in connection of wooden elements, existence of window and shutter, and some special ornamentation. The wall connection detail of the original doors is the same for all the doors under the same heading. Unfortunately, many of the original doors in the area were lost or were removed by the owners. 194 doors were lost. Either they were replaced by new ones, or either the door opening was altered or closed, or the door is simply lost and the opening is left as it is. There are 88 wooden doors, and 54 iron doors in the area. Majority of these wooden doors belong to service buildings. Nine of the wooden have metal shutter and ornamented iron bars. Most of the iron doors are entrance doors and are constructed with fine workmanship. (Table 3.2.1)

Wooden doors are divided in four main headings. (Figure 3.2.1) First type; DW01 is the most common wooden door seen in the area. There are 64 doors of this type. It is difficult to detect the originality of this door, so unless the materials and details are obviously contemporary, all of these doors were included under this heading. Many of the service building doors or secondary doors, which are storage or service doors are of this type. This door type has

no variations within itself. The second type is two-winged simple wooden door. The only variation seen in this door is one example seen with one peephole on each wing. Third type consists of panelled doors. It has two variations according to the panel types.

Doors with glazing and shutter are usually seen in buildings with elevated entrances. They all have cast iron ornamentation to protect the glazing and to close the opening. The frame of the glazing and the shutters are of iron. The glazing was probably altered later on from the original iron shutter of the door.

Iron doors are analysed under three main headings. (Figure 3.2.2) First two types are simple iron doors of similar details but different divisions. The third type consists of glazed doors. The glazing or shutter details of these door resemble those of the glazed wooden doors.

The typology of the door lintels shows a wide variety. (Figure 3.2.4) (Table 3.2.2) Here, too, a double system is used. First, the lintels seen in the area are grouped according to their simple outer forms. In some buildings, there is a single lintel covering the door. In some buildings, the door is recessed and there is second lintel around the door, providing a sheltered space in the entrance. This is also seen in buildings with elevated entrances, where there is a lintel outside covering the stairs as well, providing a shelter for the stairs. This is designated by a single capital letter at the beginning of the typology code of the lintel.

The second code gives information on a probable recessed lintel. Other elements like capitals, ornamentations on top of the lintels and the top windows are designated with small letters and numbers right after the lintel they belong to. This is a complicated system. Yet, it was the only system that could be prepared in order to analyse the door lintels. In other words, it is

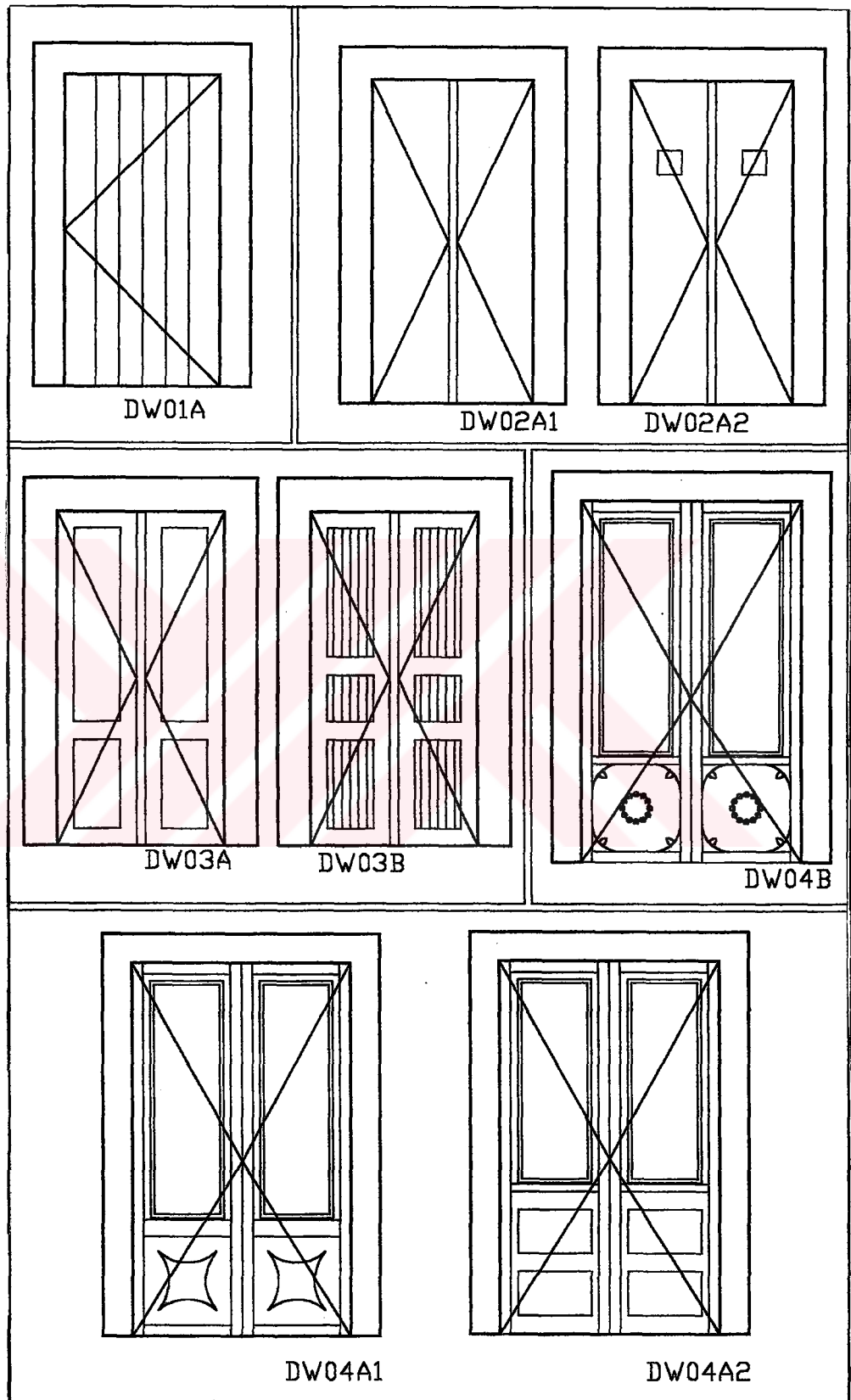


Figure 3.2.1 Typology of Wooden Doors



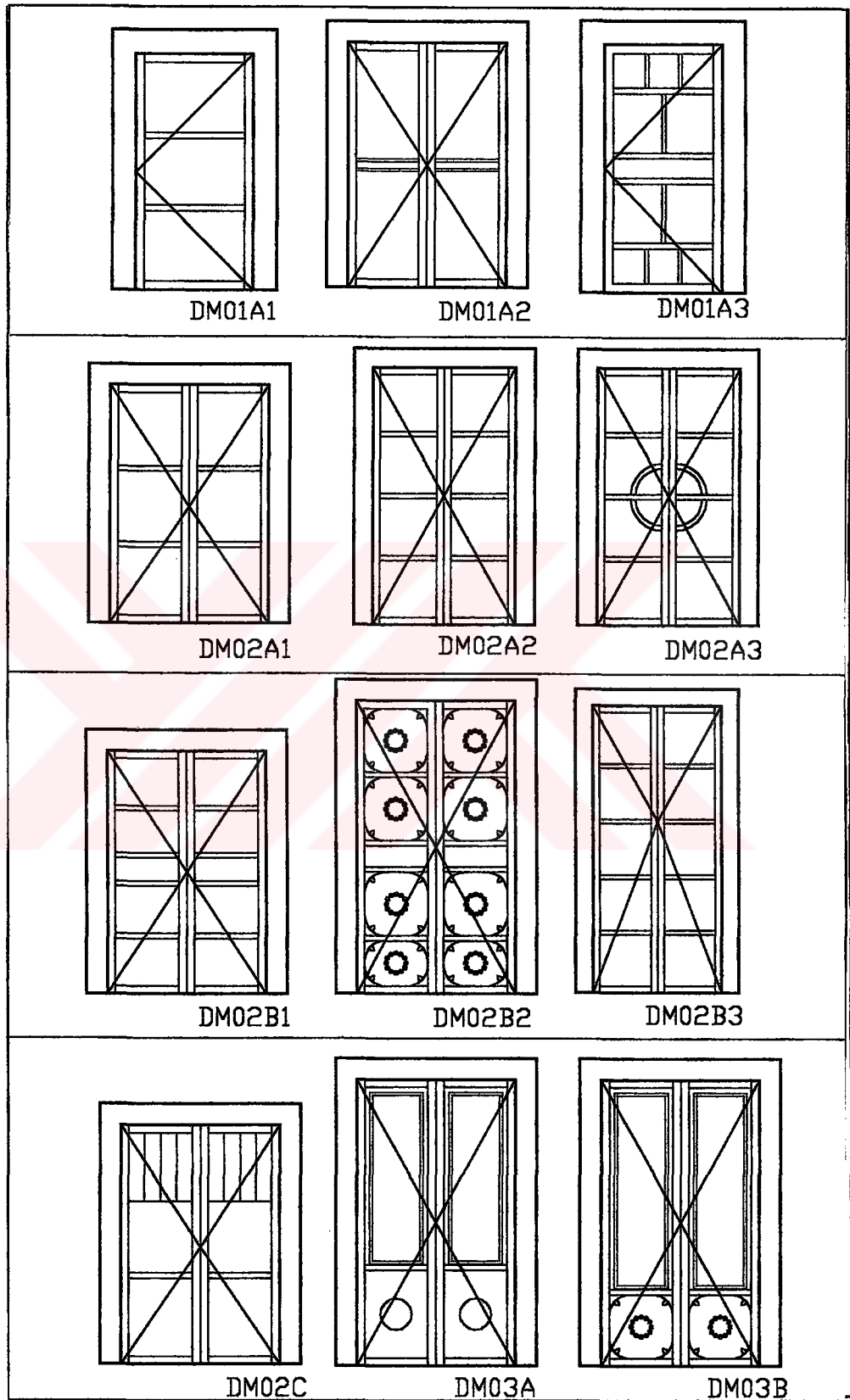


Figure 3.2.2 Typology of Metal Doors

**DOOR TYPES**

DW101A	DW101B	DW101C	DW101D	DW101E	DW101F	DW101G	DW101H	DW101I	DW101J	DW101K	DW101L	DW101M	DW101N	DW101O	DW101P	DW101Q	DW101R	DW101S	DW101T	DW101U	DW101V	DW101W	DW101X	DW101Y	DW101Z	
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

**STUDY AREA**

MISSING	CLOSED	MOSQUE	COURTYARD	COLLAPSED BUILDING	GARDEN
○	⊗	⊗	○	⊗	○

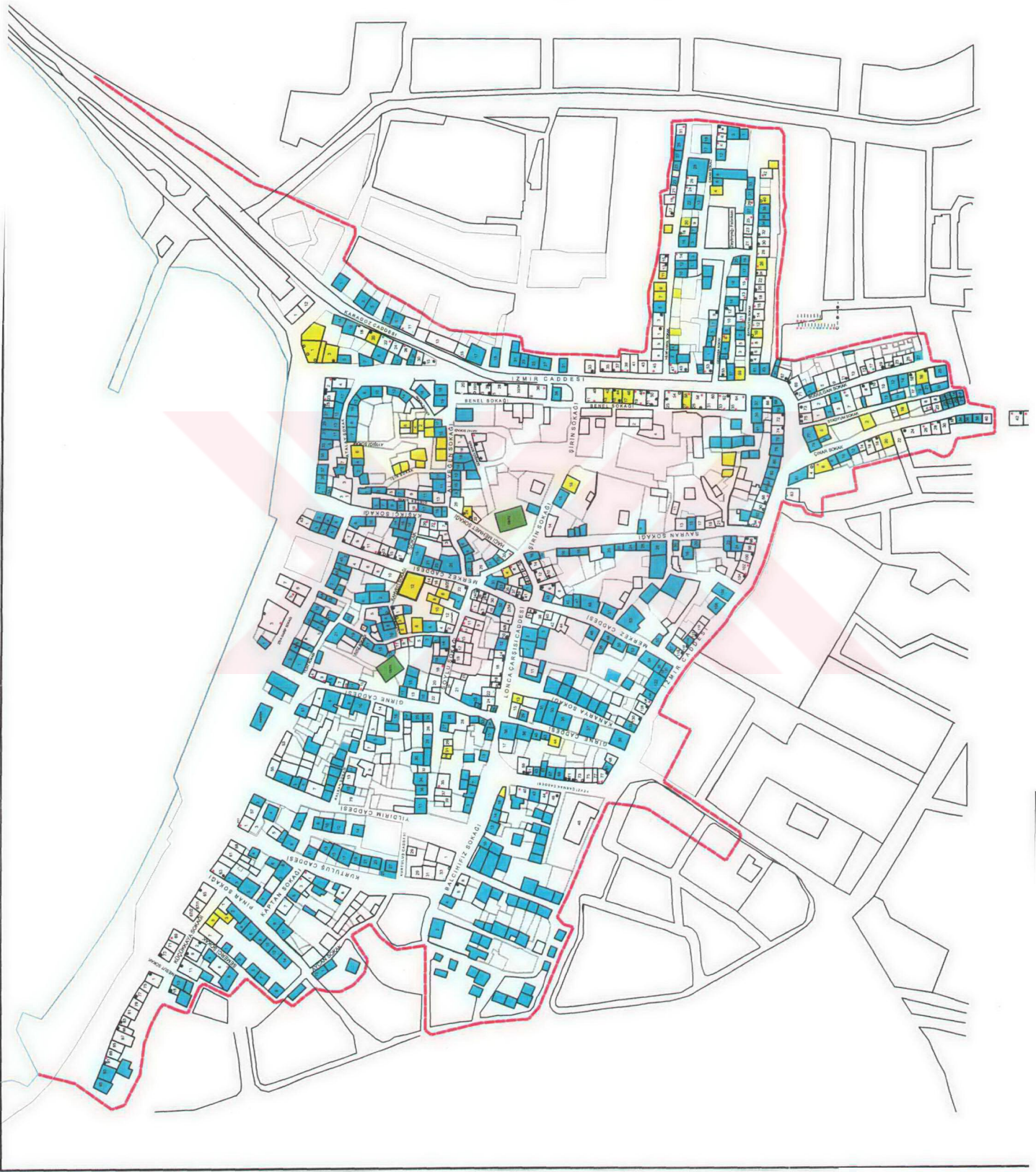
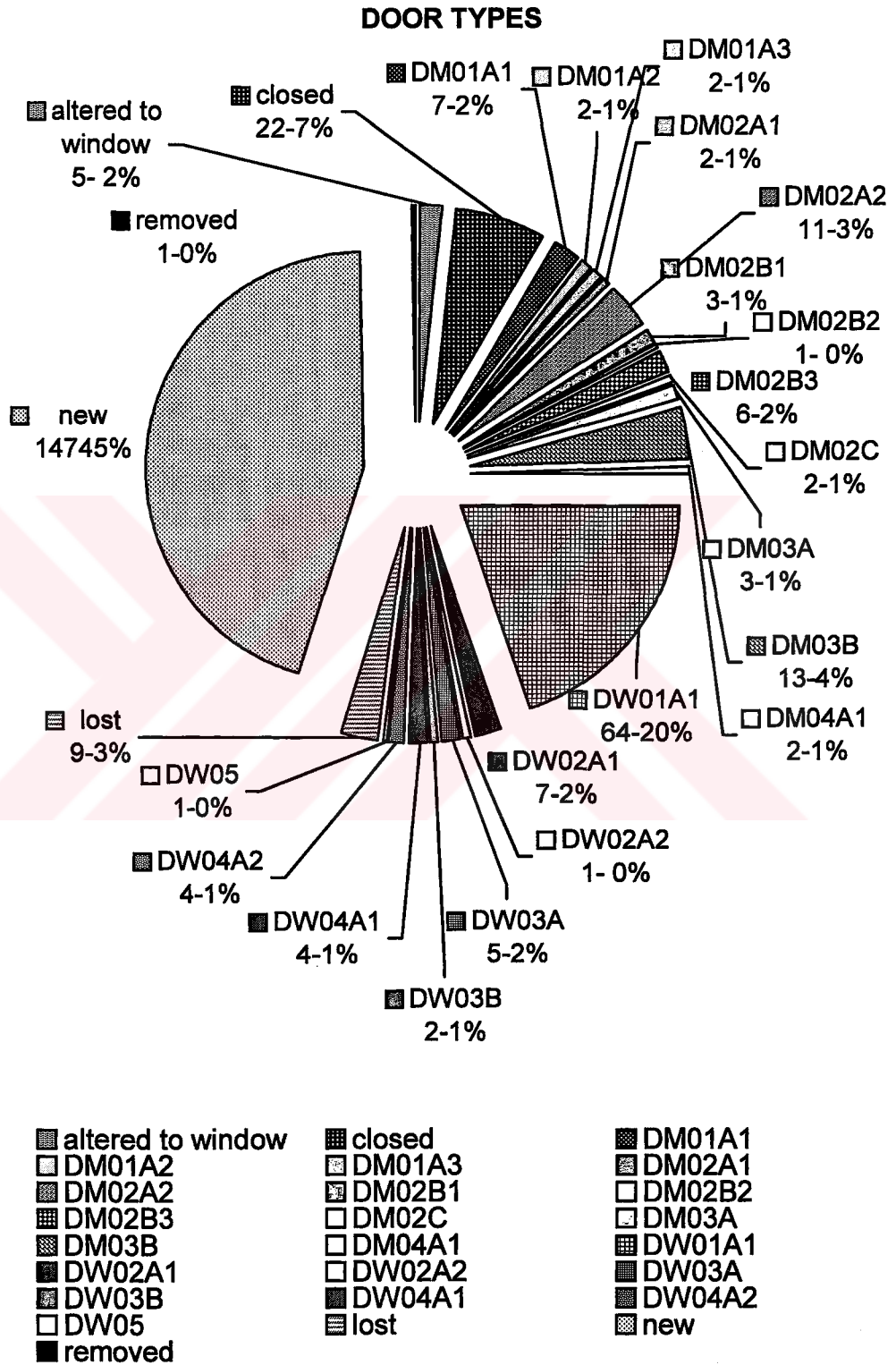


Table 3.2.1 Door Typology



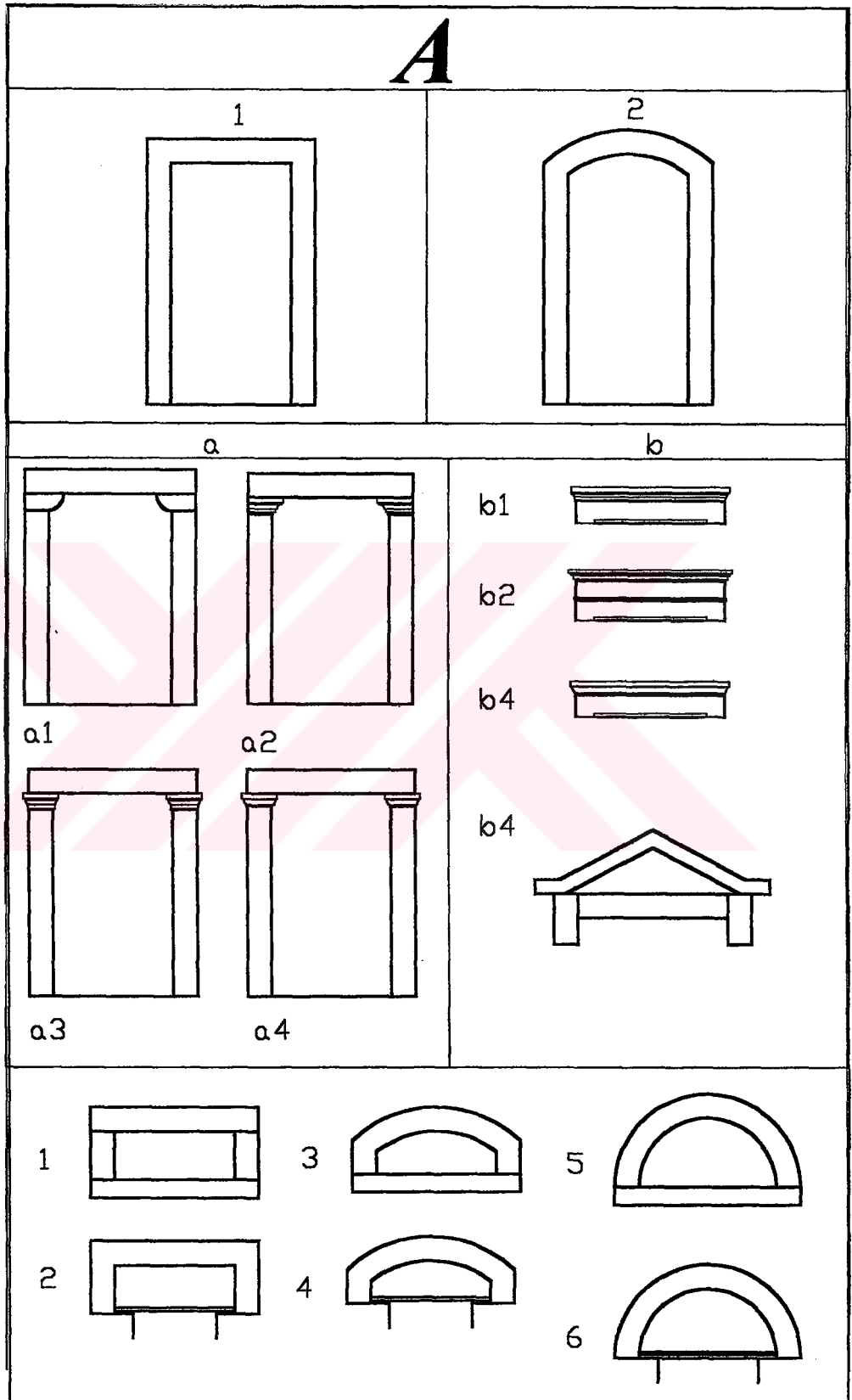


Figure 3.2.4 Door Lintel Typology I

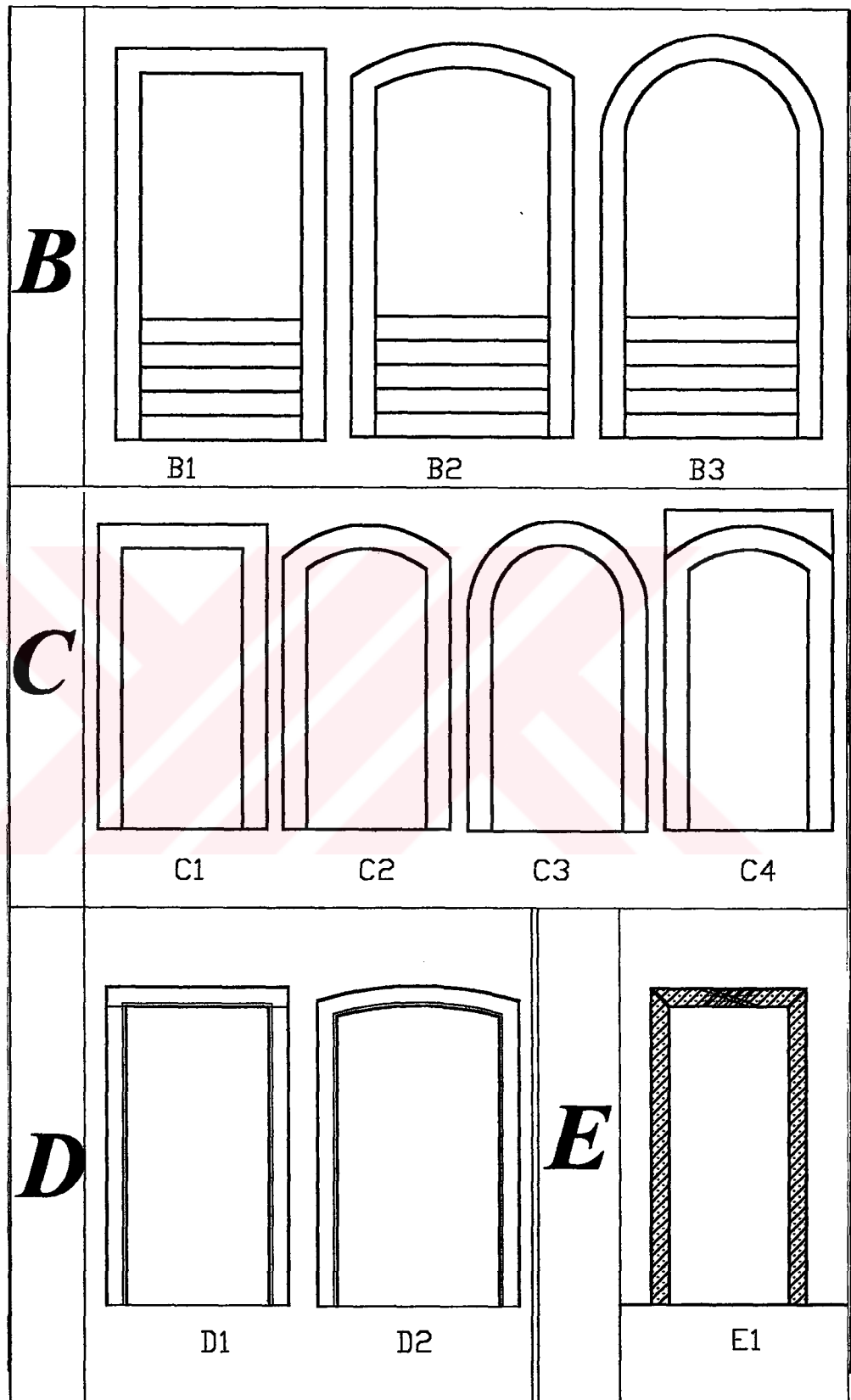
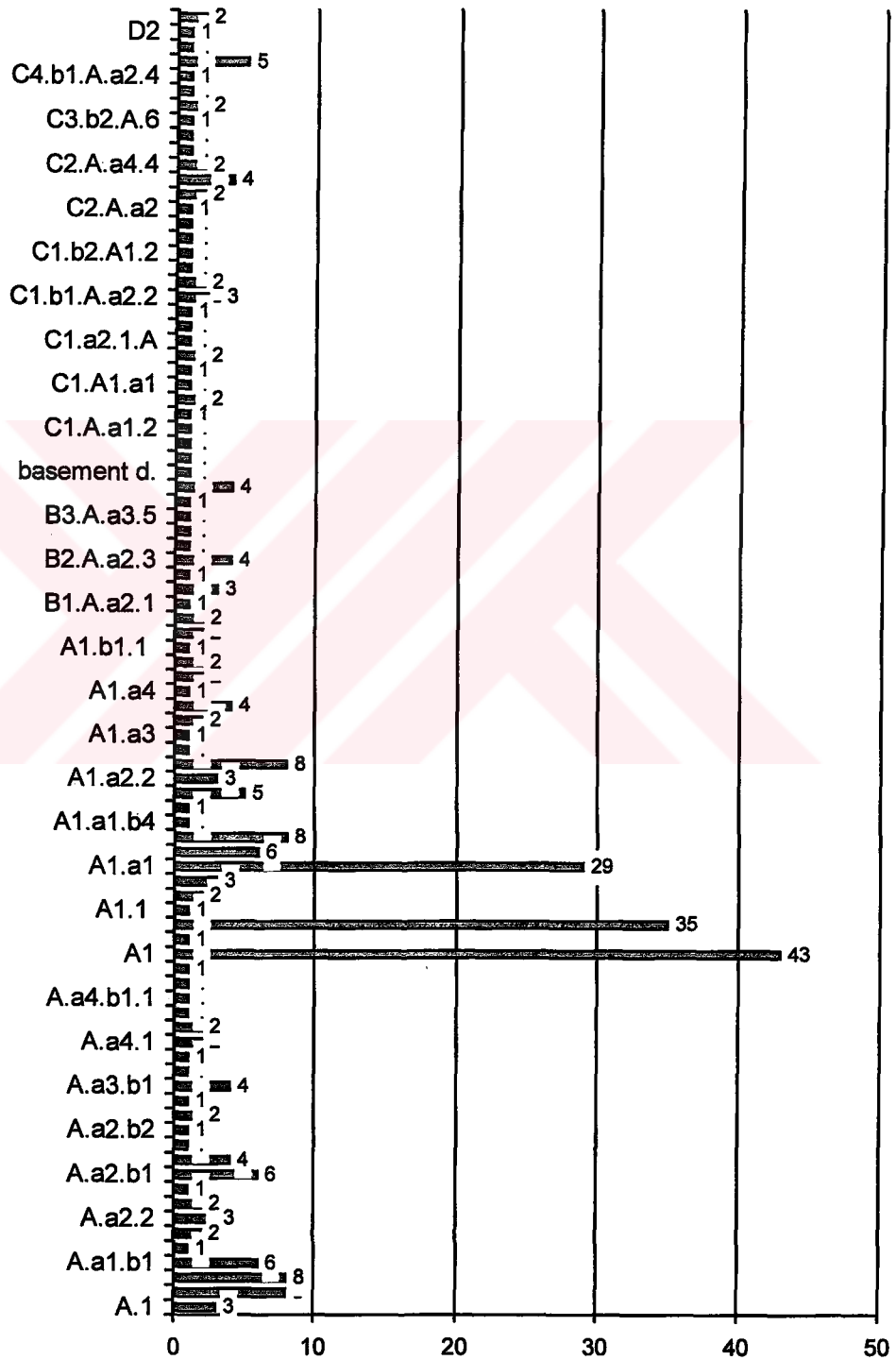


Figure 3.2.5 Door Lintel Typology II

Table 3.2.2 Door Lintel Typology

## DOOR LINTEL TYPOLOGY



impossible to prepare an explanatory typology that includes all the data collected from the lintels of the traditional buildings in the area.

### 3.3 Window

Window typology is prepared according to details and divisions of the window frames. (Figure 3.3.1) (Table 3.2.1) There are four main headings. Most of the window frames in the area have been replaced or lost. Majority of the original windows are from the first section. This group has four main divisions according to their upper and lower sections. There are subgroups according to their divisions. This type is very common.

The second type has wider cross sections than the first type and it has more crude workmanship. The third type is vertical sash window. This is probably the oldest type in the site. It is found only in buildings that have not been used for a long time. The fourth type is quite a recent type, yet it is different from the contemporary window types. (Figure 3.3.2)

The main problem of the windows is that most of them have been lost or removed. Where the shutter exists, the window behind it is either well protected or has only slight material problems. If the shutter is lost and the building is empty or is not maintained well, the windows usually suffer serious material problems. (Table 3.3.3)

Window lintels are grouped according to their forms and the ornamentations. There is a group for lintels of the shop lintels and another group for wooden window lintels of the wooden skeleton buildings. (Figure 3.3.3) (Table 3.3.2)

Also there is another group where ventilation ducts, basement windows and ventilation windows with no glazing. These may be located in different

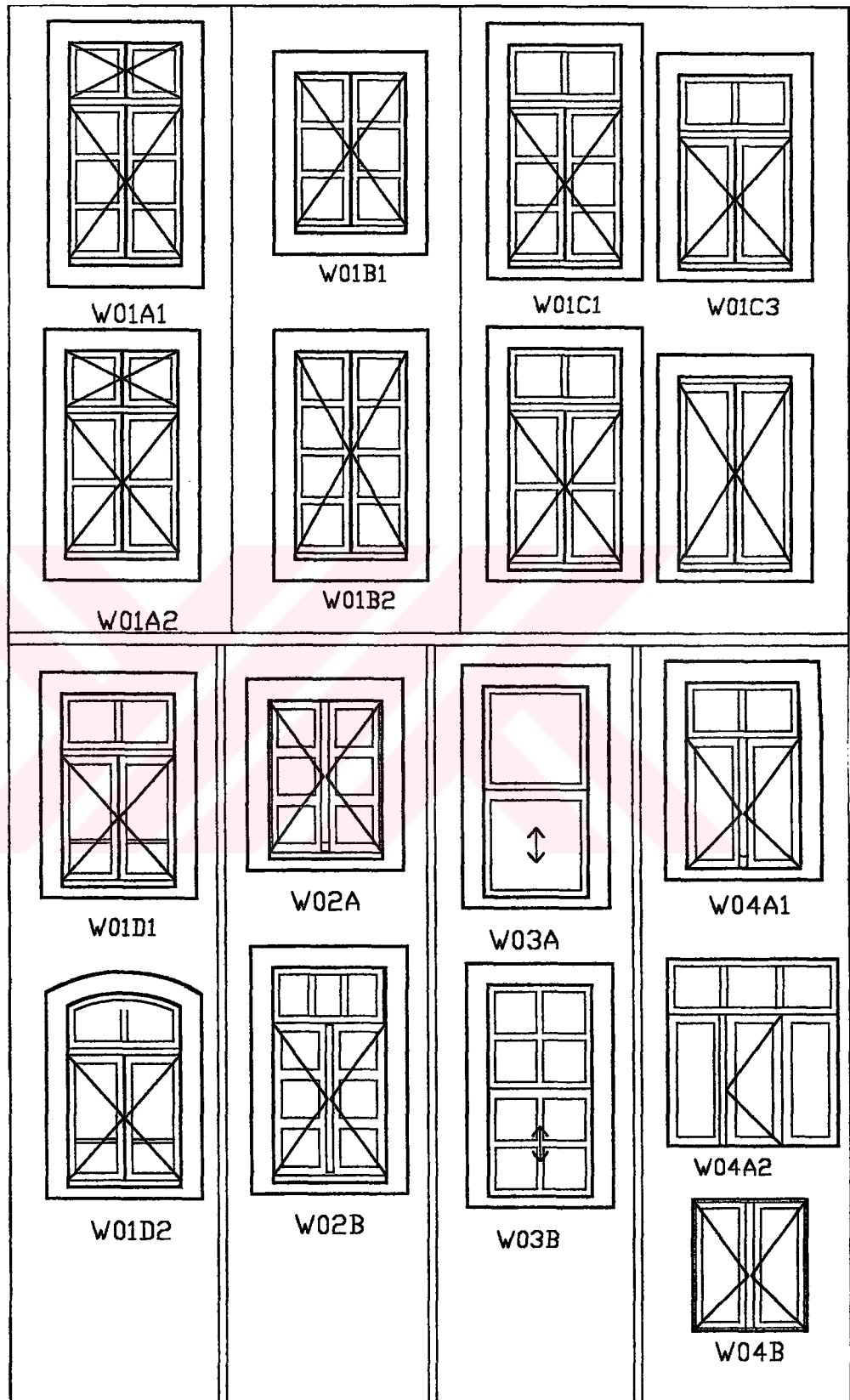


Figure 3.3.1 Window Typology



WINDOW TYPES

	WT01		WT01		WT02		WT03		WT04		WT05			WT06		WT07			WT08		WT09		WT10			WT11			WT12			WT13			WT14			WT15			WT16			WT17			WT18			WT19			WT20			WT21			WT22			WT23			WT24			WT25			WT26			WT27			WT28			WT29			WT30			WT31			WT32			WT33			WT34			WT35			WT36			WT37			WT38			WT39			WT40			WT41			WT42			WT43			WT44			WT45			WT46			WT47			WT48			WT49			WT50			WT51			WT52			WT53			WT54			WT55			WT56			WT57			WT58			WT59			WT60			WT61			WT62			WT63			WT64			WT65			WT66			WT67			WT68			WT69			WT70			WT71			WT72			WT73			WT74			WT75			WT76			WT77			WT78			WT79			WT80			WT81			WT82			WT83			WT84			WT85			WT86			WT87			WT88			WT89			WT90			WT91			WT92			WT93			WT94			WT95			WT96			WT97			WT98			WT99			WT100			WT101			WT102			WT103			WT104			WT105			WT106			WT107			WT108			WT109			WT110			WT111			WT112			WT113			WT114			WT115			WT116			WT117			WT118			WT119			WT120			WT121			WT122			WT123			WT124			WT125			WT126			WT127			WT128			WT129			WT130			WT131			WT132			WT133			WT134			WT135			WT136			WT137			WT138			WT139			WT140			WT141			WT142			WT143			WT144			WT145			WT146			WT147			WT148			WT149			WT150			WT151			WT152			WT153			WT154			WT155			WT156			WT157			WT158			WT159			WT160			WT161			WT162			WT163			WT164			WT165			WT166			WT167			WT168			WT169			WT170			WT171			WT172			WT173			WT174			WT175			WT176			WT177			WT178			WT179			WT180			WT181			WT182			WT183			WT184			WT185			WT186			WT187			WT188			WT189			WT190			WT191			WT192			WT193			WT194			WT195			WT196			WT197			WT198			WT199			WT200			WT201			WT202			WT203			WT204			WT205			WT206			WT207			WT208			WT209			WT210			WT211			WT212			WT213			WT214			WT215			WT216			WT217			WT218			WT219			WT220			WT221			WT222			WT223			WT224			WT225			WT226			WT227			WT228			WT229			WT230			WT231			WT232			WT233			WT234			WT235			WT236			WT237			WT238			WT239			WT240			WT241			WT242			WT243			WT244			WT245			WT246			WT247	
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Table 3.3.1 Window Typology

## WINDOW TYPOLOGY

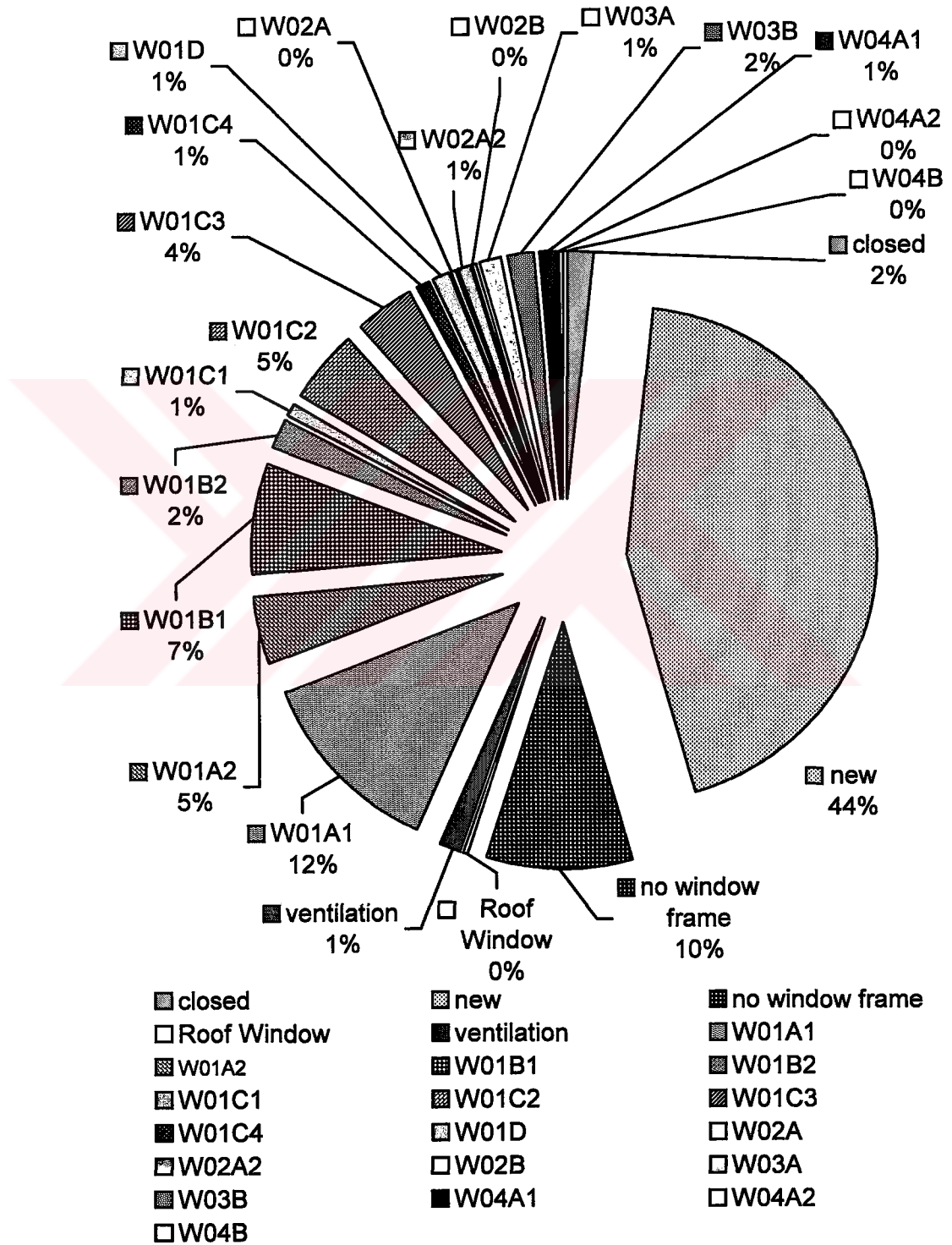
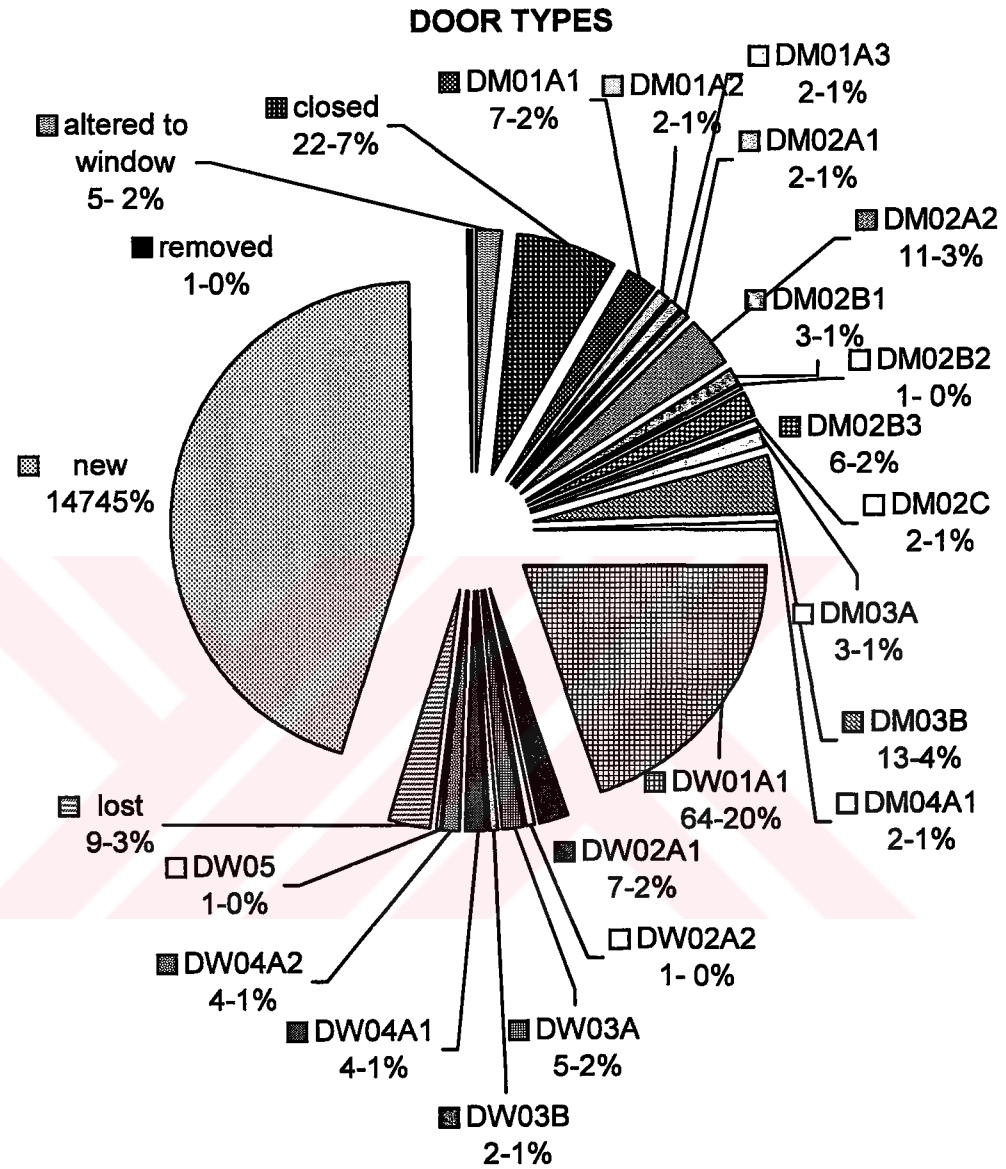


Table 3.3 Door Typology



- |                     |          |          |
|---------------------|----------|----------|
| ■ altered to window | ■ closed | ■ DM01A1 |
| ■ DM01A2            | ■ DM01A3 | ■ DM02A1 |
| ■ DM02A2            | ■ DM02B1 | ■ DM02B2 |
| ■ DM02B3            | ■ DM02C  | ■ DM03A  |
| ■ DM03B             | ■ DM04A1 | ■ DW01A1 |
| ■ DW02A1            | ■ DW02A2 | ■ DW03A  |
| ■ DW03B             | ■ DW04A1 | ■ DW04A2 |
| ■ DW05              | ■ lost   | ■ new    |
| ■ removed           |          |          |

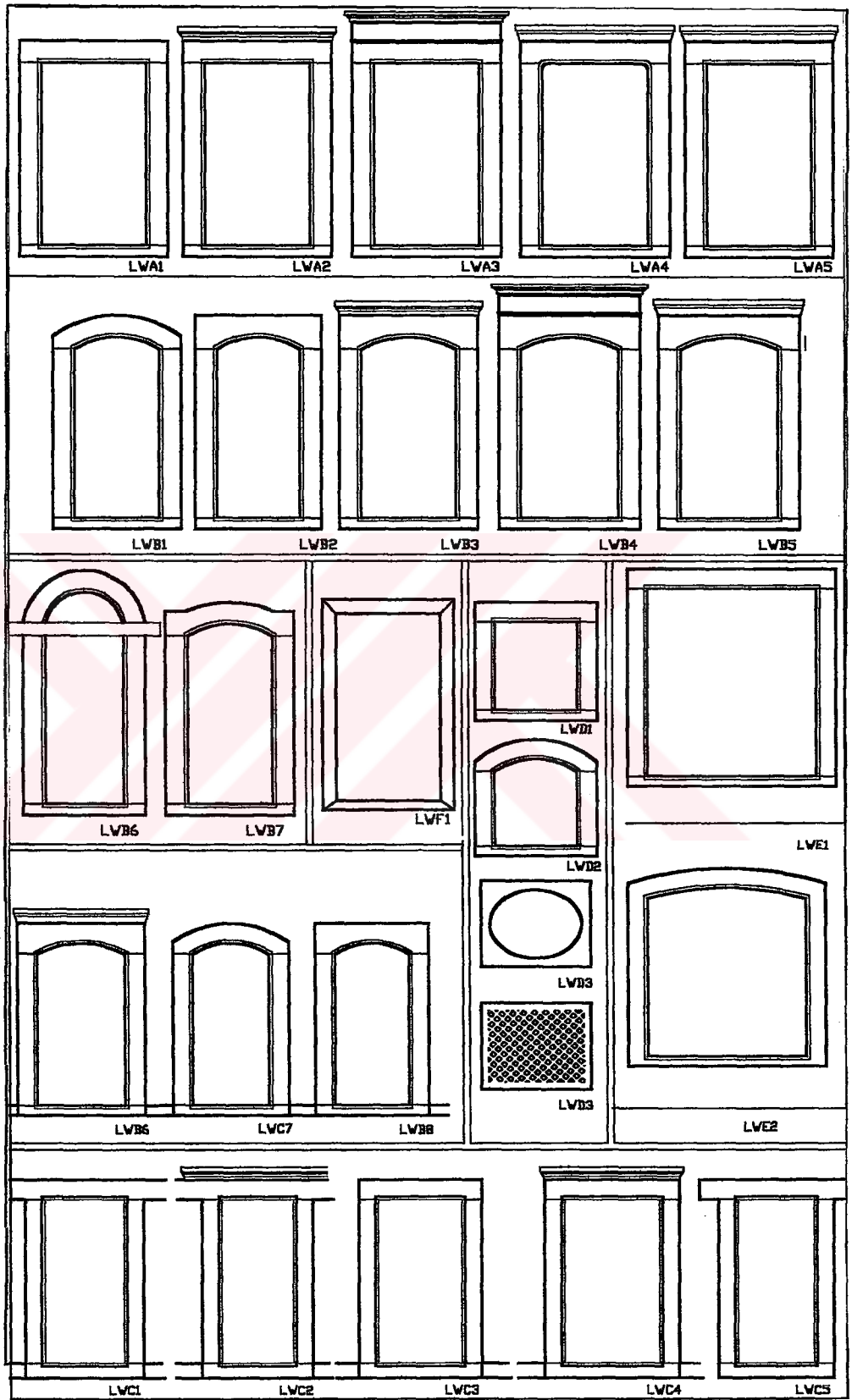
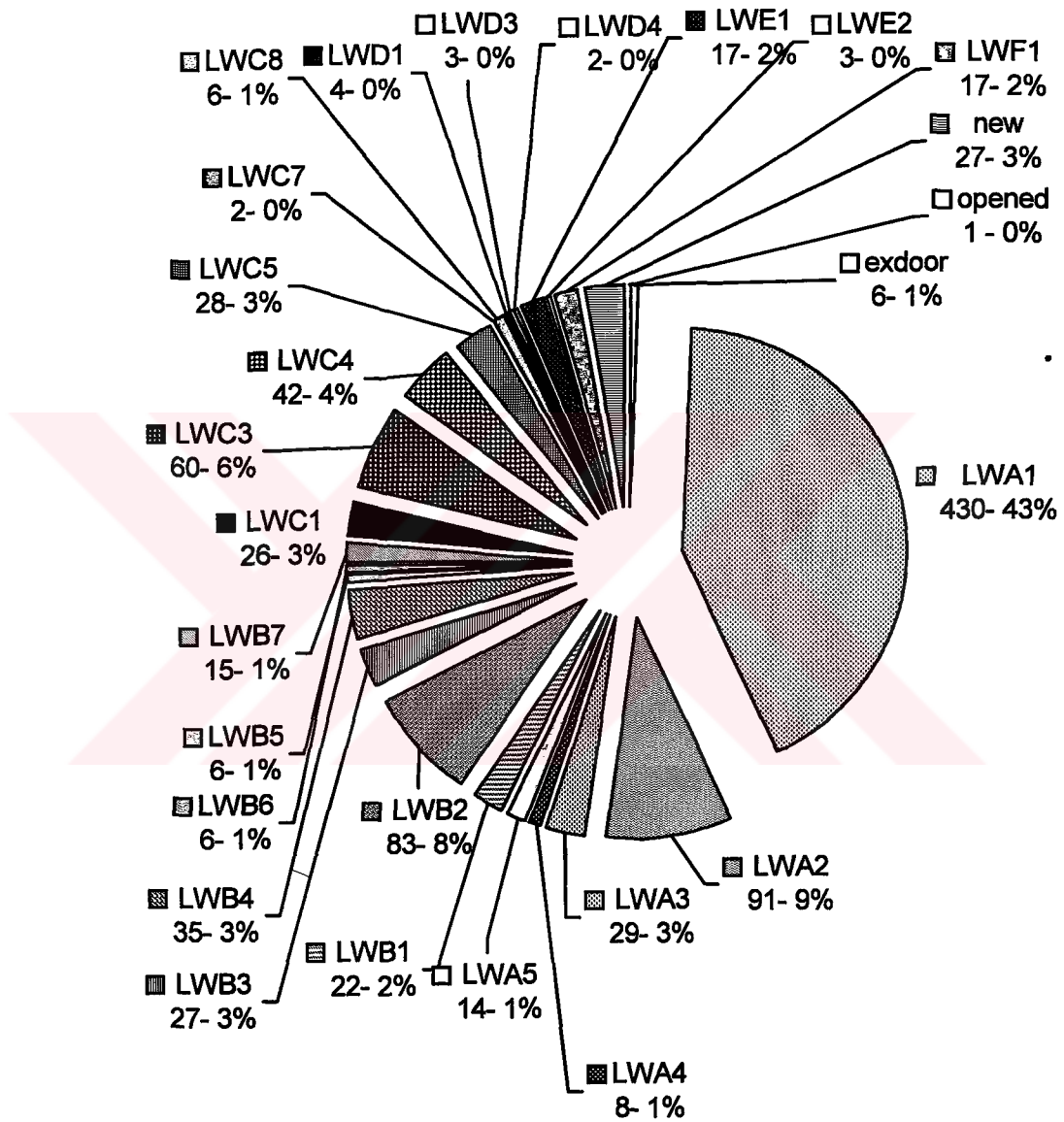


Figure 3.3.3 Window Lintel Typology

Table 3.3.2 Window Lintel Typology

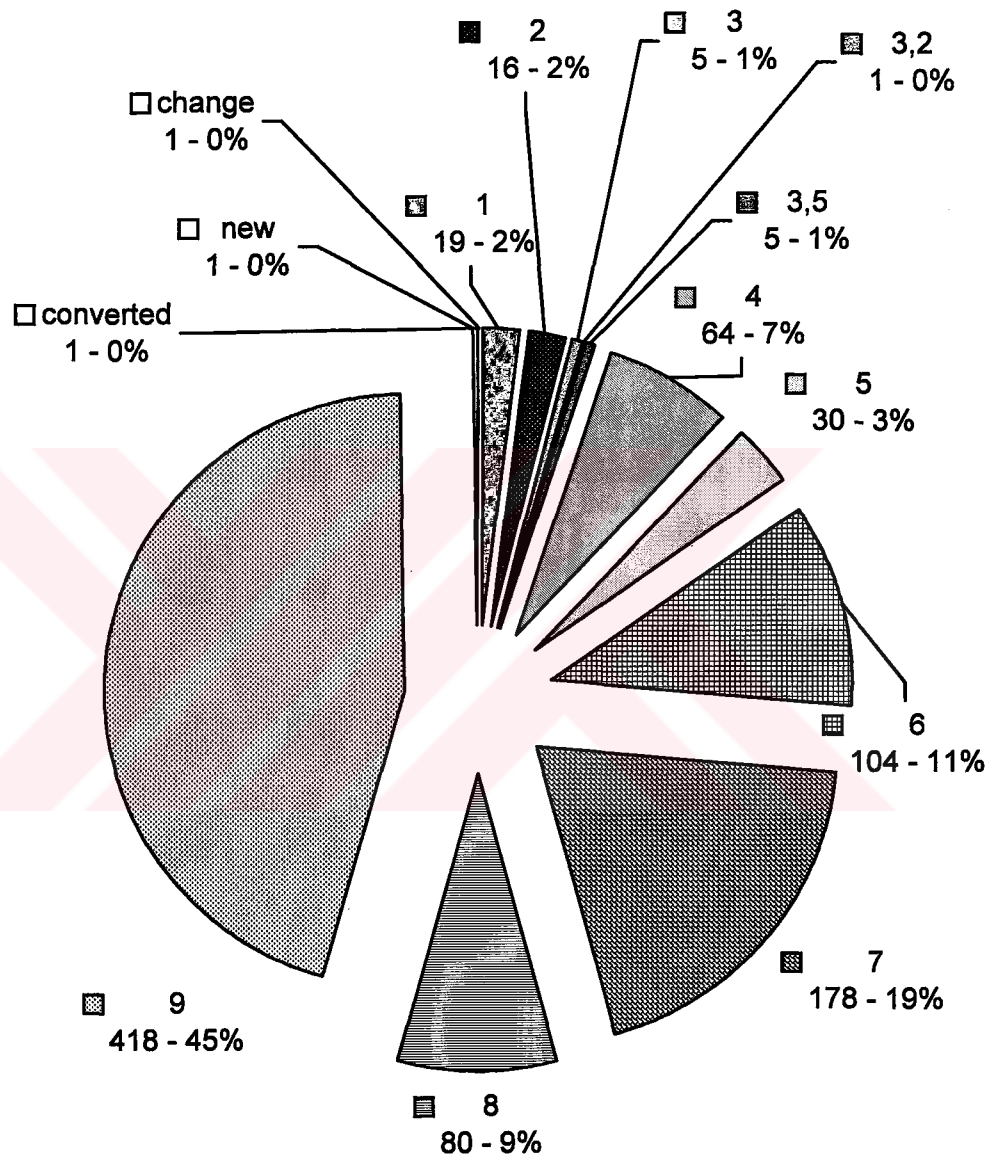
WINDOW LINTEL TYPES



□ exdoor   ▨ LWA1   ▩ LWA2   ▧ LWA3   ▦ LWA4   □ LWA5   ▤ LWB1  
 ▥ LWB2   ▣ LWB3   ▢ LWB4   □ LWB5   ■ LWB6   ▟ LWB7   ▀ LWC1  
 ▄ LWC3   ▃ LWC4   ▂ LWC5   ▁ LWC7   ▇ LWC8   ▆ LWD1   □ LWD3  
 □ LWD4   ▀ LWE1   □ LWE2   ▨ LWF1   ▩ new   □ opened

Table 3.3.3 Window Deterioration

### WINDOW DETERIORATION



- 1-loss of wing
- 2-partial material loss
- 3-serious material problems
- 3,2
- 3,5
- 4- mild material problems
- 5-needs repair, no material problems
- 6-usage problems
- 7-needs maintenance
- 8-no problems
- 9-lost
- conv. Fr. Door
- new
- size & locationchange

### 3.4 Shutter

Shutter typologies in the study area are prepared according to their materials. (Figure 3.4.1) There are two main headings; wooden shutters and metal shutters. Shutters are analysed according to their wings, Proportion of divisions, and details under both headings. There are two different wall connection details. In the first type, the hinge is connected directly to the wall. In the second type, an iron section is connected on the wall and the hinge is connected on this piece. Majority of the shutters in the area are of iron. There are 741 iron, 192 wooden and 122 new shutters in the studied area. New shutters are mostly imitations of the original shutters. New wooden shutters are varnished and they look quite alien to the site. There are a few stores, which change the architectural characteristic of the façade. (Table 3.4.1)

Wooden shutters are divided in six main headings. (Figure 3.4.2) These types have little variations within themselves. The first two types have four wings. Third and four types are common types of similar construction techniques. The only difference between them is the braces. One of them has a wooden element to tie elements together. In the other type, one iron bar tie wooden elements together and connects the shutter to the hinge. Shop and storage shutters are collected under the fifth group. Their details remember those of the third and fourth groups.

Iron shutters are analysed under five main headings. These groups have no variations in their details. The only variation is in the divisions.

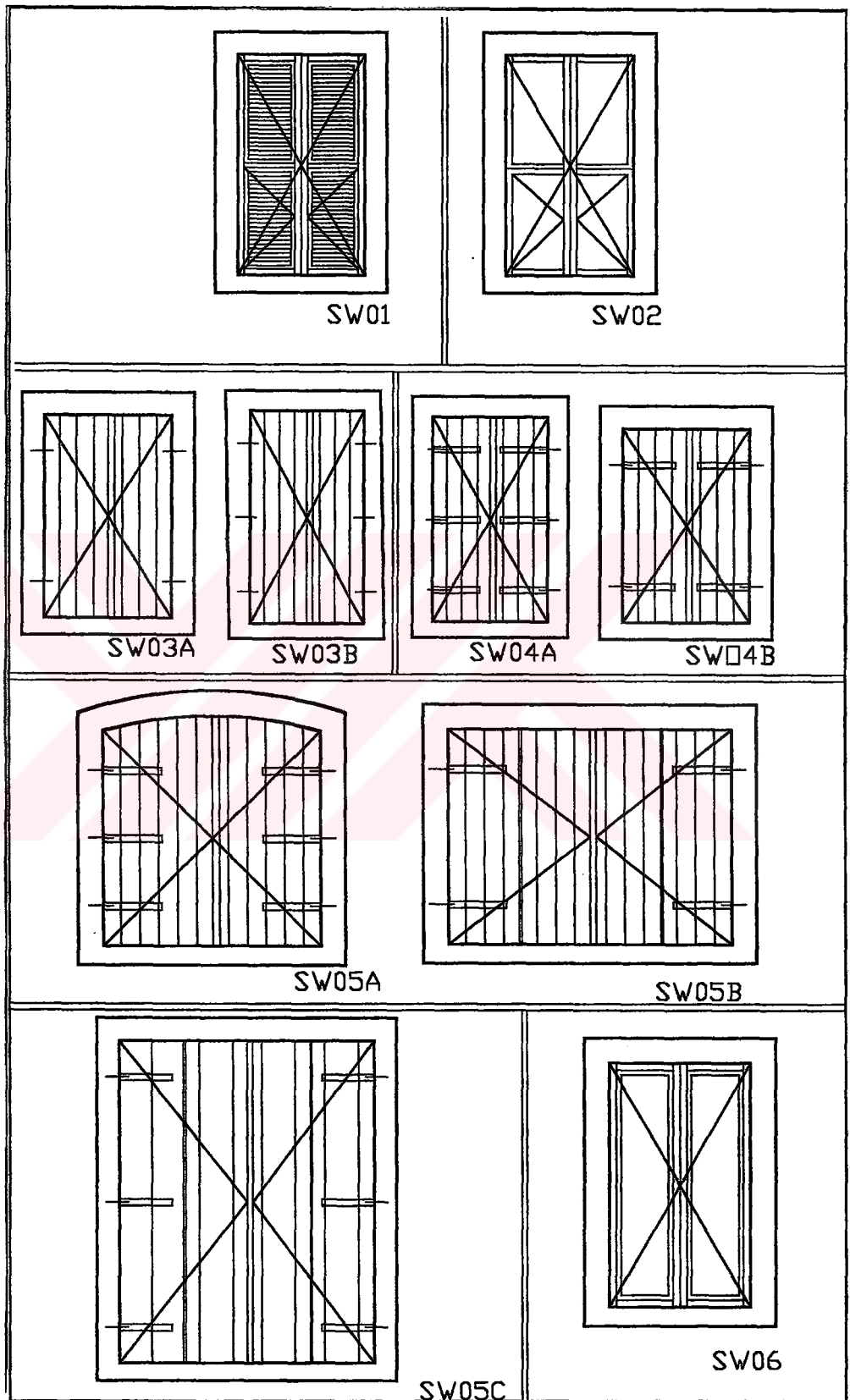


Figure 3.4.1 Shutter Typology (wooden)



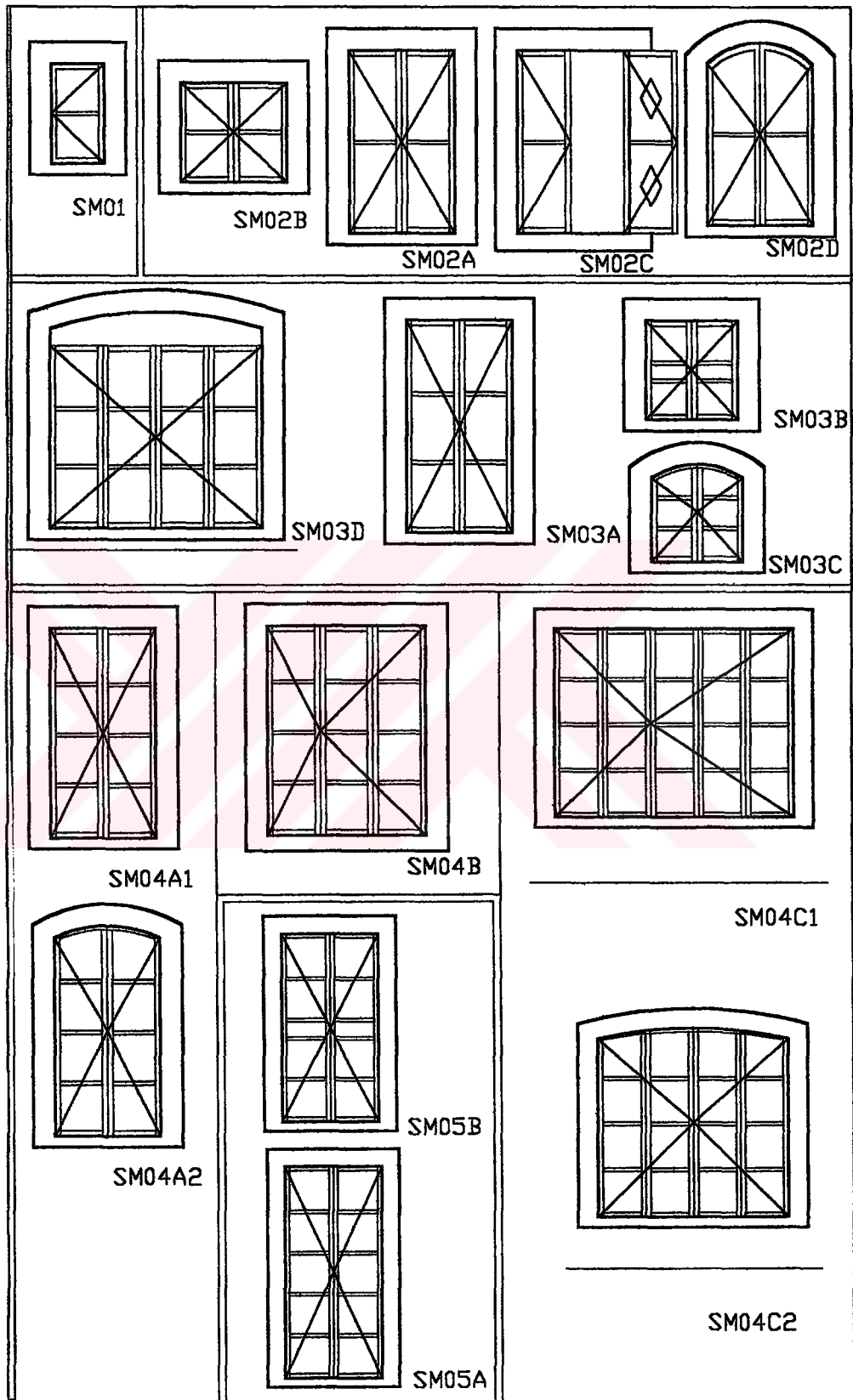


Figure 3.4.2 Shutter Typology (Iron)

**SHUTTER TYPES (IRON)**

SM1	SM2A	SM2B	SM2C	SM2D	SM2E	SM2F	SM2G	SM2H	SM2I	SM2J	SM2K	SM2L	SM2M	SM2N	SM2O	SM2P	SM2Q	SM2R	SM2S	SM2T	SM2U	SM2V	SM2W	SM2X	SM2Y	SM2Z
SM3A	SM3B	SM3C	SM3D	SM3E	SM3F	SM3G	SM3H	SM3I	SM3J	SM3K	SM3L	SM3M	SM3N	SM3O	SM3P	SM3Q	SM3R	SM3S	SM3T	SM3U	SM3V	SM3W	SM3X	SM3Y	SM3Z	
SM4A	SM4B	SM4C	SM4D	SM4E	SM4F	SM4G	SM4H	SM4I	SM4J	SM4K	SM4L	SM4M	SM4N	SM4O	SM4P	SM4Q	SM4R	SM4S	SM4T	SM4U	SM4V	SM4W	SM4X	SM4Y	SM4Z	

**SHUTTER TYPES (WOOD)**

SM5A	SM5B	SM5C	SM5D	SM5E	SM5F	SM5G	SM5H	SM5I	SM5J	SM5K	SM5L	SM5M	SM5N	SM5O	SM5P	SM5Q	SM5R	SM5S	SM5T	SM5U	SM5V	SM5W	SM5X	SM5Y	SM5Z
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**SHUTTER TYPES (METAL)**

SM6A	SM6B	SM6C	SM6D	SM6E	SM6F	SM6G	SM6H	SM6I	SM6J	SM6K	SM6L	SM6M	SM6N	SM6O	SM6P	SM6Q	SM6R	SM6S	SM6T	SM6U	SM6V	SM6W	SM6X	SM6Y	SM6Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM7A	SM7B	SM7C	SM7D	SM7E	SM7F	SM7G	SM7H	SM7I	SM7J	SM7K	SM7L	SM7M	SM7N	SM7O	SM7P	SM7Q	SM7R	SM7S	SM7T	SM7U	SM7V	SM7W	SM7X	SM7Y	SM7Z
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**SHUTTER TYPES (MIDDLE)**

SM8A	SM8B	SM8C	SM8D	SM8E	SM8F	SM8G	SM8H	SM8I	SM8J	SM8K	SM8L	SM8M	SM8N	SM8O	SM8P	SM8Q	SM8R	SM8S	SM8T	SM8U	SM8V	SM8W	SM8X	SM8Y	SM8Z
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**SHUTTER TYPES (COURTYARD)**

SM9A	SM9B	SM9C	SM9D	SM9E	SM9F	SM9G	SM9H	SM9I	SM9J	SM9K	SM9L	SM9M	SM9N	SM9O	SM9P	SM9Q	SM9R	SM9S	SM9T	SM9U	SM9V	SM9W	SM9X	SM9Y	SM9Z
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**SHUTTER TYPES (GARDEN)**

SM10A	SM10B	SM10C	SM10D	SM10E	SM10F	SM10G	SM10H	SM10I	SM10J	SM10K	SM10L	SM10M	SM10N	SM10O	SM10P	SM10Q	SM10R	SM10S	SM10T	SM10U	SM10V	SM10W	SM10X	SM10Y	SM10Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM11A	SM11B	SM11C	SM11D	SM11E	SM11F	SM11G	SM11H	SM11I	SM11J	SM11K	SM11L	SM11M	SM11N	SM11O	SM11P	SM11Q	SM11R	SM11S	SM11T	SM11U	SM11V	SM11W	SM11X	SM11Y	SM11Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM12A	SM12B	SM12C	SM12D	SM12E	SM12F	SM12G	SM12H	SM12I	SM12J	SM12K	SM12L	SM12M	SM12N	SM12O	SM12P	SM12Q	SM12R	SM12S	SM12T	SM12U	SM12V	SM12W	SM12X	SM12Y	SM12Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM13A	SM13B	SM13C	SM13D	SM13E	SM13F	SM13G	SM13H	SM13I	SM13J	SM13K	SM13L	SM13M	SM13N	SM13O	SM13P	SM13Q	SM13R	SM13S	SM13T	SM13U	SM13V	SM13W	SM13X	SM13Y	SM13Z
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**SHUTTER TYPES (MIDDLE)**

SM14A	SM14B	SM14C	SM14D	SM14E	SM14F	SM14G	SM14H	SM14I	SM14J	SM14K	SM14L	SM14M	SM14N	SM14O	SM14P	SM14Q	SM14R	SM14S	SM14T	SM14U	SM14V	SM14W	SM14X	SM14Y	SM14Z
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**SHUTTER TYPES (COURTYARD)**

SM15A	SM15B	SM15C	SM15D	SM15E	SM15F	SM15G	SM15H	SM15I	SM15J	SM15K	SM15L	SM15M	SM15N	SM15O	SM15P	SM15Q	SM15R	SM15S	SM15T	SM15U	SM15V	SM15W	SM15X	SM15Y	SM15Z
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**SHUTTER TYPES (GARDEN)**

SM16A	SM16B	SM16C	SM16D	SM16E	SM16F	SM16G	SM16H	SM16I	SM16J	SM16K	SM16L	SM16M	SM16N	SM16O	SM16P	SM16Q	SM16R	SM16S	SM16T	SM16U	SM16V	SM16W	SM16X	SM16Y	SM16Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM17A	SM17B	SM17C	SM17D	SM17E	SM17F	SM17G	SM17H	SM17I	SM17J	SM17K	SM17L	SM17M	SM17N	SM17O	SM17P	SM17Q	SM17R	SM17S	SM17T	SM17U	SM17V	SM17W	SM17X	SM17Y	SM17Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM18A	SM18B	SM18C	SM18D	SM18E	SM18F	SM18G	SM18H	SM18I	SM18J	SM18K	SM18L	SM18M	SM18N	SM18O	SM18P	SM18Q	SM18R	SM18S	SM18T	SM18U	SM18V	SM18W	SM18X	SM18Y	SM18Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM19A	SM19B	SM19C	SM19D	SM19E	SM19F	SM19G	SM19H	SM19I	SM19J	SM19K	SM19L	SM19M	SM19N	SM19O	SM19P	SM19Q	SM19R	SM19S	SM19T	SM19U	SM19V	SM19W	SM19X	SM19Y	SM19Z
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**SHUTTER TYPES (MIDDLE)**

SM20A	SM20B	SM20C	SM20D	SM20E	SM20F	SM20G	SM20H	SM20I	SM20J	SM20K	SM20L	SM20M	SM20N	SM20O	SM20P	SM20Q	SM20R	SM20S	SM20T	SM20U	SM20V	SM20W	SM20X	SM20Y	SM20Z
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**SHUTTER TYPES (COURTYARD)**

SM21A	SM21B	SM21C	SM21D	SM21E	SM21F	SM21G	SM21H	SM21I	SM21J	SM21K	SM21L	SM21M	SM21N	SM21O	SM21P	SM21Q	SM21R	SM21S	SM21T	SM21U	SM21V	SM21W	SM21X	SM21Y	SM21Z
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**SHUTTER TYPES (GARDEN)**

SM22A	SM22B	SM22C	SM22D	SM22E	SM22F	SM22G	SM22H	SM22I	SM22J	SM22K	SM22L	SM22M	SM22N	SM22O	SM22P	SM22Q	SM22R	SM22S	SM22T	SM22U	SM22V	SM22W	SM22X	SM22Y	SM22Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM23A	SM23B	SM23C	SM23D	SM23E	SM23F	SM23G	SM23H	SM23I	SM23J	SM23K	SM23L	SM23M	SM23N	SM23O	SM23P	SM23Q	SM23R	SM23S	SM23T	SM23U	SM23V	SM23W	SM23X	SM23Y	SM23Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM24A	SM24B	SM24C	SM24D	SM24E	SM24F	SM24G	SM24H	SM24I	SM24J	SM24K	SM24L	SM24M	SM24N	SM24O	SM24P	SM24Q	SM24R	SM24S	SM24T	SM24U	SM24V	SM24W	SM24X	SM24Y	SM24Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM25A	SM25B	SM25C	SM25D	SM25E	SM25F	SM25G	SM25H	SM25I	SM25J	SM25K	SM25L	SM25M	SM25N	SM25O	SM25P	SM25Q	SM25R	SM25S	SM25T	SM25U	SM25V	SM25W	SM25X	SM25Y	SM25Z
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**SHUTTER TYPES (MIDDLE)**

SM26A	SM26B	SM26C	SM26D	SM26E	SM26F	SM26G	SM26H	SM26I	SM26J	SM26K	SM26L	SM26M	SM26N	SM26O	SM26P	SM26Q	SM26R	SM26S	SM26T	SM26U	SM26V	SM26W	SM26X	SM26Y	SM26Z
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**SHUTTER TYPES (COURTYARD)**

SM27A	SM27B	SM27C	SM27D	SM27E	SM27F	SM27G	SM27H	SM27I	SM27J	SM27K	SM27L	SM27M	SM27N	SM27O	SM27P	SM27Q	SM27R	SM27S	SM27T	SM27U	SM27V	SM27W	SM27X	SM27Y	SM27Z
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**SHUTTER TYPES (GARDEN)**

SM28A	SM28B	SM28C	SM28D	SM28E	SM28F	SM28G	SM28H	SM28I	SM28J	SM28K	SM28L	SM28M	SM28N	SM28O	SM28P	SM28Q	SM28R	SM28S	SM28T	SM28U	SM28V	SM28W	SM28X	SM28Y	SM28Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM29A	SM29B	SM29C	SM29D	SM29E	SM29F	SM29G	SM29H	SM29I	SM29J	SM29K	SM29L	SM29M	SM29N	SM29O	SM29P	SM29Q	SM29R	SM29S	SM29T	SM29U	SM29V	SM29W	SM29X	SM29Y	SM29Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM30A	SM30B	SM30C	SM30D	SM30E	SM30F	SM30G	SM30H	SM30I	SM30J	SM30K	SM30L	SM30M	SM30N	SM30O	SM30P	SM30Q	SM30R	SM30S	SM30T	SM30U	SM30V	SM30W	SM30X	SM30Y	SM30Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM31A	SM31B	SM31C	SM31D	SM31E	SM31F	SM31G	SM31H	SM31I	SM31J	SM31K	SM31L	SM31M	SM31N	SM31O	SM31P	SM31Q	SM31R	SM31S	SM31T	SM31U	SM31V	SM31W	SM31X	SM31Y	SM31Z
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**SHUTTER TYPES (MIDDLE)**

SM32A	SM32B	SM32C	SM32D	SM32E	SM32F	SM32G	SM32H	SM32I	SM32J	SM32K	SM32L	SM32M	SM32N	SM32O	SM32P	SM32Q	SM32R	SM32S	SM32T	SM32U	SM32V	SM32W	SM32X	SM32Y	SM32Z
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**SHUTTER TYPES (COURTYARD)**

SM33A	SM33B	SM33C	SM33D	SM33E	SM33F	SM33G	SM33H	SM33I	SM33J	SM33K	SM33L	SM33M	SM33N	SM33O	SM33P	SM33Q	SM33R	SM33S	SM33T	SM33U	SM33V	SM33W	SM33X	SM33Y	SM33Z
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**SHUTTER TYPES (GARDEN)**

SM34A	SM34B	SM34C	SM34D	SM34E	SM34F	SM34G	SM34H	SM34I	SM34J	SM34K	SM34L	SM34M	SM34N	SM34O	SM34P	SM34Q	SM34R	SM34S	SM34T	SM34U	SM34V	SM34W	SM34X	SM34Y	SM34Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM35A	SM35B	SM35C	SM35D	SM35E	SM35F	SM35G	SM35H	SM35I	SM35J	SM35K	SM35L	SM35M	SM35N	SM35O	SM35P	SM35Q	SM35R	SM35S	SM35T	SM35U	SM35V	SM35W	SM35X	SM35Y	SM35Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM36A	SM36B	SM36C	SM36D	SM36E	SM36F	SM36G	SM36H	SM36I	SM36J	SM36K	SM36L	SM36M	SM36N	SM36O	SM36P	SM36Q	SM36R	SM36S	SM36T	SM36U	SM36V	SM36W	SM36X	SM36Y	SM36Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM37A	SM37B	SM37C	SM37D	SM37E	SM37F	SM37G	SM37H	SM37I	SM37J	SM37K	SM37L	SM37M	SM37N	SM37O	SM37P	SM37Q	SM37R	SM37S	SM37T	SM37U	SM37V	SM37W	SM37X	SM37Y	SM37Z
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**SHUTTER TYPES (MIDDLE)**

SM38A	SM38B	SM38C	SM38D	SM38E	SM38F	SM38G	SM38H	SM38I	SM38J	SM38K	SM38L	SM38M	SM38N	SM38O	SM38P	SM38Q	SM38R	SM38S	SM38T	SM38U	SM38V	SM38W	SM38X	SM38Y	SM38Z
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**SHUTTER TYPES (COURTYARD)**

SM39A	SM39B	SM39C	SM39D	SM39E	SM39F	SM39G	SM39H	SM39I	SM39J	SM39K	SM39L	SM39M	SM39N	SM39O	SM39P	SM39Q	SM39R	SM39S	SM39T	SM39U	SM39V	SM39W	SM39X	SM39Y	SM39Z
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**SHUTTER TYPES (GARDEN)**

SM40A	SM40B	SM40C	SM40D	SM40E	SM40F	SM40G	SM40H	SM40I	SM40J	SM40K	SM40L	SM40M	SM40N	SM40O	SM40P	SM40Q	SM40R	SM40S	SM40T	SM40U	SM40V	SM40W	SM40X	SM40Y	SM40Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM41A	SM41B	SM41C	SM41D	SM41E	SM41F	SM41G	SM41H	SM41I	SM41J	SM41K	SM41L	SM41M	SM41N	SM41O	SM41P	SM41Q	SM41R	SM41S	SM41T	SM41U	SM41V	SM41W	SM41X	SM41Y	SM41Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM42A	SM42B	SM42C	SM42D	SM42E	SM42F	SM42G	SM42H	SM42I	SM42J	SM42K	SM42L	SM42M	SM42N	SM42O	SM42P	SM42Q	SM42R	SM42S	SM42T	SM42U	SM42V	SM42W	SM42X	SM42Y	SM42Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM43A	SM43B	SM43C	SM43D	SM43E	SM43F	SM43G	SM43H	SM43I	SM43J	SM43K	SM43L	SM43M	SM43N	SM43O	SM43P	SM43Q	SM43R	SM43S	SM43T	SM43U	SM43V	SM43W	SM43X	SM43Y	SM43Z
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**SHUTTER TYPES (MIDDLE)**

SM44A	SM44B	SM44C	SM44D	SM44E	SM44F	SM44G	SM44H	SM44I	SM44J	SM44K	SM44L	SM44M	SM44N	SM44O	SM44P	SM44Q	SM44R	SM44S	SM44T	SM44U	SM44V	SM44W	SM44X	SM44Y	SM44Z
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**SHUTTER TYPES (COURTYARD)**

SM45A	SM45B	SM45C	SM45D	SM45E	SM45F	SM45G	SM45H	SM45I	SM45J	SM45K	SM45L	SM45M	SM45N	SM45O	SM45P	SM45Q	SM45R	SM45S	SM45T	SM45U	SM45V	SM45W	SM45X	SM45Y	SM45Z
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**SHUTTER TYPES (GARDEN)**

SM46A	SM46B	SM46C	SM46D	SM46E	SM46F	SM46G	SM46H	SM46I	SM46J	SM46K	SM46L	SM46M	SM46N	SM46O	SM46P	SM46Q	SM46R	SM46S	SM46T	SM46U	SM46V	SM46W	SM46X	SM46Y	SM46Z
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**SHUTTER TYPES (WOODEN SHUTTER)**

SM47A	SM47B	SM47C	SM47D	SM47E	SM47F	SM47G	SM47H	SM47I	SM47J	SM47K	SM47L	SM47M	SM47N	SM47O	SM47P	SM47Q	SM47R	SM47S	SM47T	SM47U	SM47V	SM47W	SM47X	SM47Y	SM47Z
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**SHUTTER TYPES (METAL SHUTTER)**

SM48A	SM48B	SM48C	SM48D	SM48E	SM48F	SM48G	SM48H	SM48I	SM48J	SM48K	SM48L	SM48M	SM48N	SM48O	SM48P	SM48Q	SM48R	SM48S	SM48T	SM48U	SM48V	SM48W	SM48X	SM48Y	SM48Z
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**SHUTTER TYPES (COLAPSED BUILDING)**

SM49A	SM49B	SM49C	SM49D	SM49E	SM49F	SM49G</
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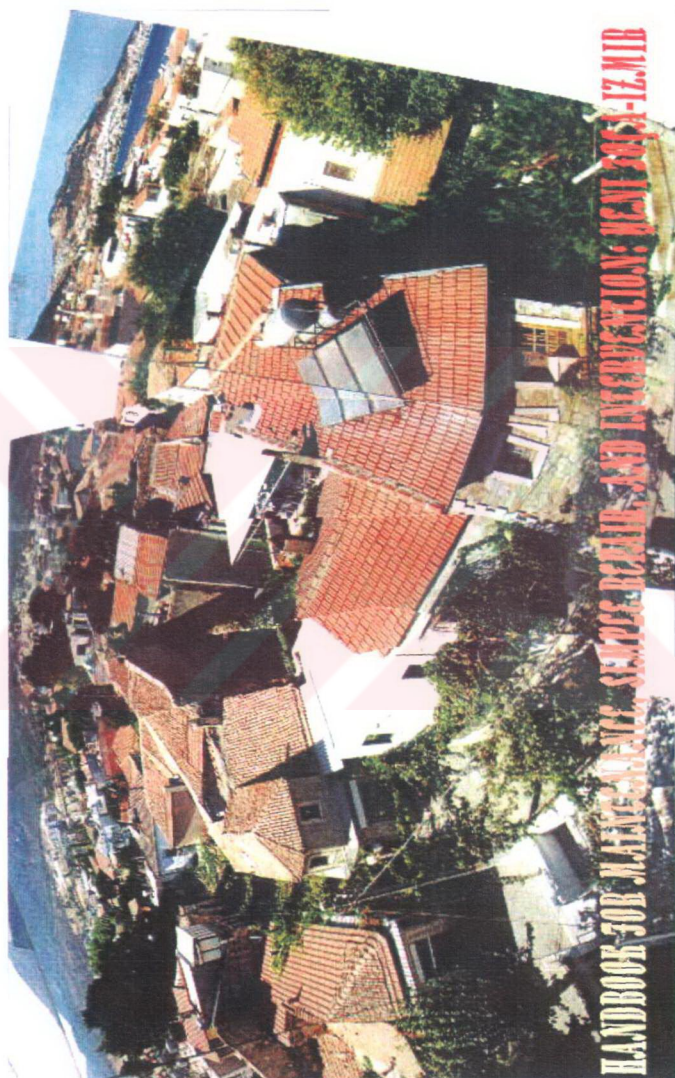


Figure 4.1 Cover of the Handbook

## CHAPTER 4

### HANDBOOK FOR MAINTENANCE, SIMPLE REPAIR, AND INTERVENTION

#### 4.1 Introduction

In this handbook, the aim is to show every possible problem that any door, window or shutter may face in its lifetime. Because of this, general material problems and solutions to these are given under one heading, and problems that are particular to each element regardless of its type are given under another heading.

When a traditional building is in question, it is difficult to detect problems and to solve them without assistance. Today, in traditional towns, many traditional construction techniques are forgotten. Especially in places like Yeni Foça, where major population shift has occurred, it is difficult to find old craftsmen who still remember the history of these buildings. As a result of this, and because of the changing needs of today, modern materials and modern construction techniques take place of new ones.

First, it is easier to obtain these materials in the market, and in some cases, they may be cheaper than the traditional ones. It might feel better to use the contemporary materials for the buildings and for your own convenience. Modern materials and techniques may seem superior to the traditional ones. Yet, it is healthier for these buildings to use material as close to the original ones as possible. Otherwise, your building may suffer from serious material

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problems caused by the inappropriate use of modern materials and in the long run, this will create more problems for the building than it solves.

In some cases, you, as the building owner, are aware that the materials and techniques that best suit the building should be used. Yet, you lack the information on how to do this.

This handbook aims to inform the owners of traditional buildings on their buildings; possible problems of the buildings, causes for these and simple suggestions.

Although probable problems of the whole building and some simple suggestions will be given, the content of this handbook mainly includes information on doors, windows and shutters. Other parts of the building are handled only to guide the house owner on detecting a problem and to inform him on what steps to be taken.

This handbook includes every type of traditional door, window and shutter that you may see in Yeni Foça. There are thorough explanations of these elements through detailed drawings. In this handbook, the aim is to show every problem that a type of door, window or shutter may face in its lifetime, regardless of the problems that are seen in the particular in question.

For example, if the element to be searched is a wooden door, you will look in the section for wood in order to understand the problems sourcing from its material. The next step will be to check in the section for doors to see the possible problems of doors in general. In this way, you will see every problem that the door in question may have. After this, you will check for the proposals for the problems detected under the same headings, which are located under the main heading; proposals.

There are detailed drawings for each type of door, window or shutter in the town in one section. This section gives information on the parts of the

element in question, their dimensions, on how to reassemble or replace the deteriorated or lost pieces of the element, how they are joined together and how they are installed on the wall. There are also proposals for the solutions of some usage problems.

*This arrangement is done for you to find the problem and to reach for the answer to your question with minimum effort.*

## 4.2 GENERAL INFORMATION

The history of Yeni Foça starts with the fortification built by the Genoese. At this time, it was only a fortification to protect the bay of Yeni Foça, which was an ideal port in the area. Later on, alum mines were discovered very close to the fortification. At first, these mines were used by the Phokaeans. With the reign of the Byzantines in the area, the namesake of Yeni Foça, Foça (Phokaea) started to lose its importance. At this time, Port of Yeni Foça gained importance. (Figure 5.1.1)

In 1275, the alum mines were given to the Genoese tradesman, Manuele Zaccario, as a result of the treaty signed between Byzantine Emperor Michael Paleologus and the Genoese Republic. The city was named as Phokaea Nouova then, meaning the new Phokaea.

The Genoese were planning to establish a mining town here, where only fifty miners would live. Yet, during the establishment of the town, many Byzantines moved here from Manisa, Menemen (Mainomenos), and Kemalpaşa (Nymphæum). As a result, in 1307, Yeni Foça was a town of 3000 with its Greek and Latin population. At this time, the town was very prosperous as a result of the alum trade and its well-protected port.

Soon after its establishment, the Genoese had to pay an annual tax to the Bey of Saruhanoğulları, in order to be able to keep the dominion of the two Foça's. After the establishment of the Ottomans, this state of the town

continued until the Ottoman Sultan, Yıldırım Bayezid took over the Aegean coast. Although coastal colonies stopped paying taxes during the Timurid invasion, Mehmet I gained power and set Ottoman power again over the colonies. During the time of Fatih Sultan Mehmet, the commander of the Ottoman navy, Yusuf Paşa gained complete power over the colonies. Yeni Foça was captured in 1455, its main church in the centre of the town was converted to a mosque and was given the name "Fatih Camii". There is still a mosque in the town with the same name. Although the location of this mosque is most probably the same as the mosque mentioned it was reconstructed later. At this time, Yeni Foça was within the Sancak of Manisa.

In the XVI<sup>th</sup> Century, a strong castle was erected in Yeni Foça, during the reign of the Süleyman the Magnificent. Yeni Foça was an important connection for the east-west trade. It was especially a good port for the transfer of the Persian silk to the European countries. Again, during this time, 17 families moved from Sakız Island (Chios) to Yeni Foça to the southeast of the inner castle and established Papaz Mahallesi. At this time, there were only a few Genoese left in the town and the majority of the population was Muslim.

In the XVII<sup>th</sup> Century, the town was so important that, when İzmir was widely destroyed by the big earthquake in 1688 and the following fires, it was considered to establish the new trade centre here.

By the end of the XIX<sup>th</sup> Century, , Foçateyn is a sub-province connected to İzmir, Sancak of Aydın Province. At this time, it is named as Foçateyn, meaning the two Foça, as it includes both Eski and Yeni Foça. The mayor was Greek, yet the "Kaymakam" was a Turkish Governor. Yeni Foça remained the centre of the sub-province until 1893. After this date, Foçateyn became a "kaymakamlık", and Eski Foça was the centre this time, as it was close to the salt production areas. At this time, Yeni Foça was still a lively harbour and trade town. It was an important trade centre where textile



exchange took place between İzmir and the Aegean Islands. In İzmir Caddesi there were a number of textile shops. Many goods were brought here before İzmir. Towards the end of the nineteenth century, Yeni Foça was a fast growing town. The population was mostly dealing with fishing and navigation along with agriculture.

After the First World War, Yeni Foça was occupied by the Greek armies in May 1919, and was freed in September 11, 1922. After the Independence War, all the Greek population left the town, and immigrants from Pirveşte were settled in their places. This caused major change in the living conditions and economy of the town. After this, also immigrants from Bulgaria and Yugoslavia came to settle in the town. The town was in a very bad condition after the war. Especially due to vandalism and the poor economic conditions of the long war period, many buildings were destroyed. The new Turkish Government tried to repair these houses in order to accommodate the new settlers, but the fact that the construction materials were very expensive in the region, and that labour was not sufficient has caused these attempts to be unsuccessful. The immigrants were not willing to continue vine-culture. They started tobacco production in the area. The land proved adequate for this production so tobacco production continued. In 1923, Yeni Foça was within the sub-province, Foça. The centre of the sub-province was Eski Foça. In 1924, Foça-Yeni Foça region became a military zone due to its strategic location. Entrances to the area were strictly controlled. This caused migrations from the town. The trade activity ceased. This situation has ended in 1952; however, the town could never become as active as before.

Yeni Foça had been a sub-district of Eski Foça until 1972. After this date, it has become a municipality. However, Eski Foça is still the centre of the Sub-province. Yeni Foça has three villages; Çakmaklı, Horozgediği and Kozbeyli. (Figure. 4.2.2) There is no significant increase in the local population. The population of the Foça sub-province in 1970 was 2.323. Actually, after this date, there is a decrease in the population of the town. In 1970, population

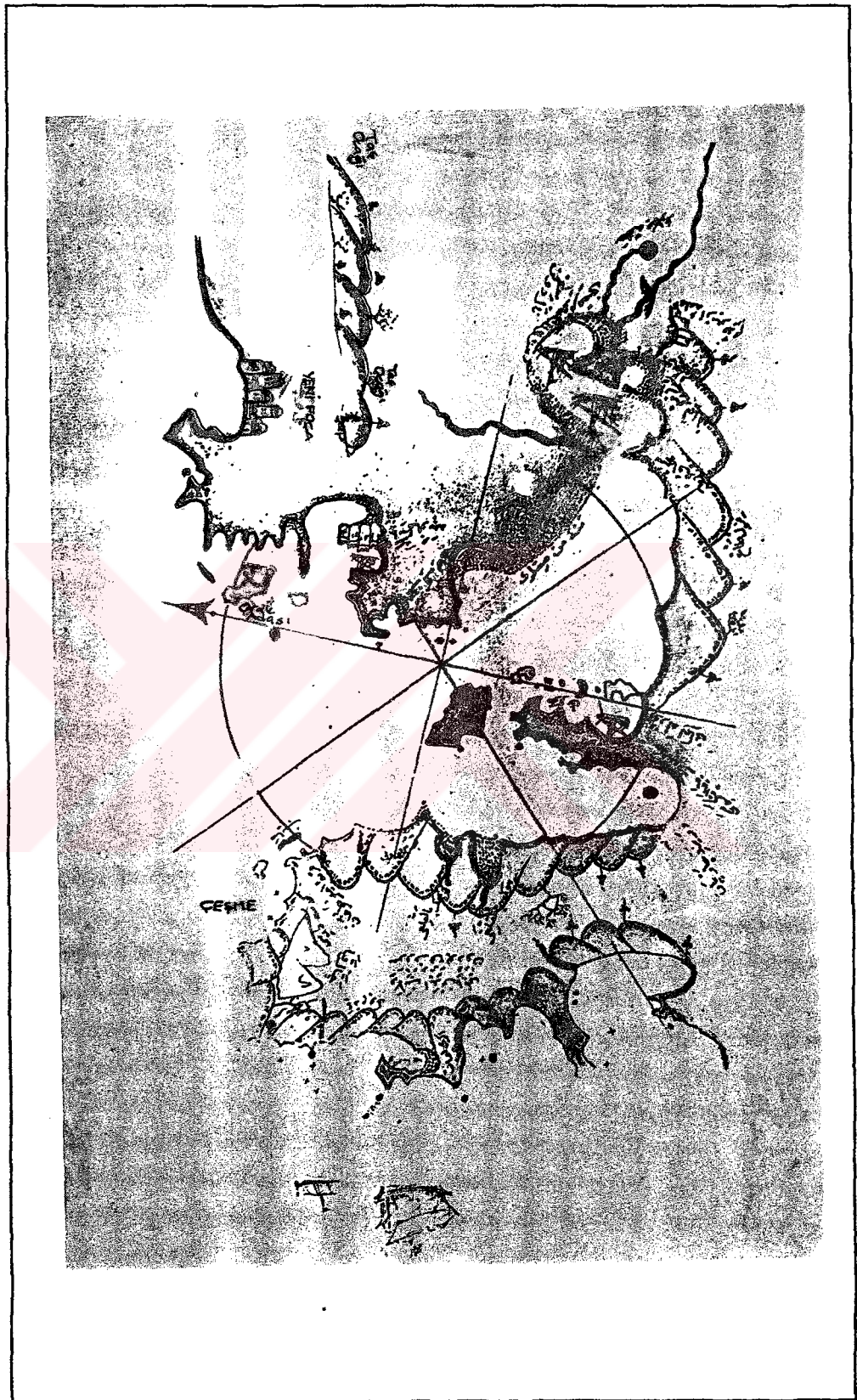


Figure 4.2.1 Map of Eski and Yeni Foça by Piri Reis (Afetinan, A., 1987)

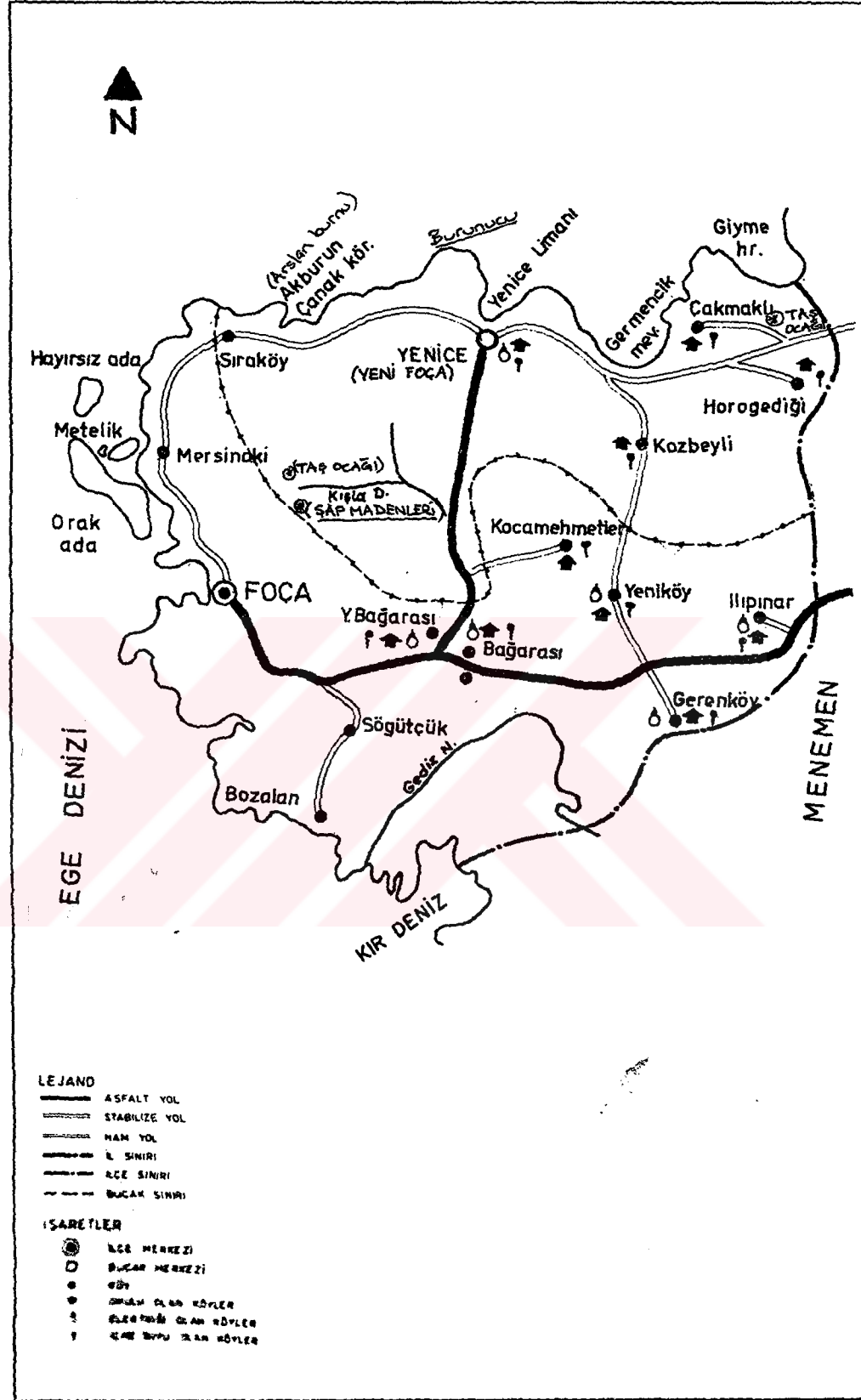


Figure 4.2.2 Map of Eski Foça and Yeni Foça (İzmir İl Yıllığı, 1973)

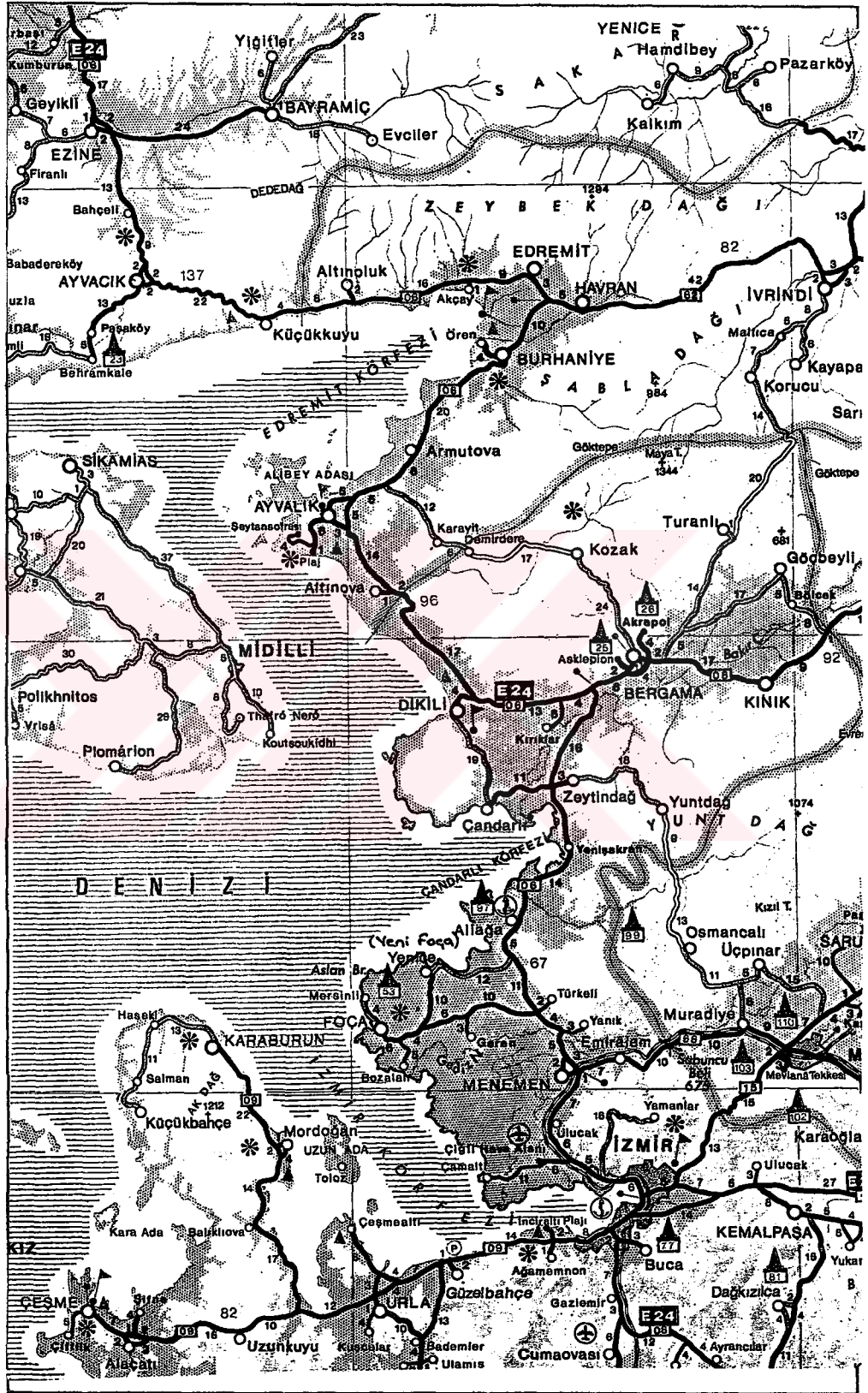


Figure 4.2.3 Map of Yeni Foça and the environs (İzmir İl Yıllığı, 1975)

of Yeni Foça was 2275; in 1975, 1536; in 1980, it was 1750, and in 1990 8853. (Figure 4.2.3)

Yeni Foça is a 19<sup>th</sup>-20<sup>th</sup> Century historic settlement, which reflects the characteristics of its period as a small trades town. Its bay is suitable and safe for the ship. There are olive trees and fields just outside the town. The sea is suitable for fishing. There are two olive oil factories, which were used even after the war (Figure 4.2.4)

It has a commercial centre consisting of two perpendicular streets, in the middle of the town. The buildings in the area are still used for commercial purposes. Either they are single storied buildings, or they have a floor upstairs for the shop owner to live. These second stories are usually used for storage today. This area reflects the commercial use of the 19<sup>th</sup> Century, with its function and the big windows of the shops. (Figure 4.2.5-4.2.6-4.2.7)

The biggest and most imposing buildings are located along the shore, although many of them are pulled down for many purposes or they are in ruins due to neglect. (Figure 4.2.8)

Yeni Foça is a nice place for many for daily summer and spring tours, and for staying in summers. Many people from İzmir come to the town to stay in summers or to have a nice day by the seaside, admiring the inhabitants of the town who enjoy this atmosphere all the time.

Buildings are the main elements to form the pattern of a town. Yeni Foça seems to be a typical seaside town of the coastal Aegean region at the first sight, with its two storied little stone buildings and the market area. Yet, its each building carries a different story that very rarely reveals itself. (Figure 4.2.9)

When you look at these buildings that you have lived in maybe for whole your lives, you might find it difficult to hear these stories. You may even find it meaningless when outsiders come and admire these old buildings.

What you see when you look at these buildings is the reflection of the past cultures and experiences. They are the outcome of a construction and planning experience of thousands of years. They belong to a craftsmanship tradition, where the best was aimed, unlike the understanding of today, where profit is in the top place. They are reminders of the values that we should never forget.

Everybody would like to live in a place with unique characteristics. These buildings, with their stone walls, provide an aesthetic touch to the streets of the town. The walls constructed with great care, lintels of doors and windows, and decorative doors reflect the taste of the past and this taste is not different from the contemporary taste. (Figure 4.2.10)

The buildings are lined up in such a way that the breeze can travel through all the streets equally. From any street of the town, you can smell the breeze and tell the direction of the sea. This is a gift for a dwelling in such a hot region. The other characteristic of these buildings is that, they have no projections to obstruct the other building. The buildings are lined in a perfect row, each respectful to the other people living in the town. The only projections seen are the flat stones placed while constructing the wall, which were placed to place flowerpots. These stones are empty today, waiting for the day to come, when the façades will rejoice with the beauty of nature again. (Figure 4.2.11)

The street oriented design is still successfully used by the inhabitants today. It gives an opportunity to live with your neighbours and provides a lively street atmosphere, which is very unlikely of today's designs, where streets became deserted spaces of the cities allocated to vehicles only.



Figure 4.2.4 Olive Oil Factory  
İzmir Cadesi No:37-41



Figure 4.2.5 Shop İzmir  
Caddesi No: 42

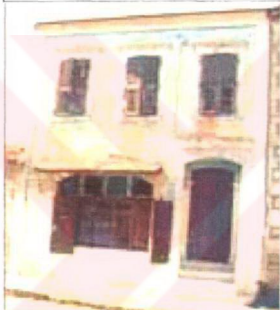


Figure 4.2.6 Shop  
İzmir Caddesi No:39-41



Figure 4.2.7 Shop  
Şirin Sokağı No:8



Figure 4.2.8  
Sahil Caddesi No:65



Figure 4.2.9  
Mesut Sokağı No:1



Figure 4.2.10  
Ziya Garip Sokağı No:3



Figure 4.2.11  
İzmir Caddesi No:40

Thick walls of the buildings provide an ideal climate in the interiors. What the dwellers of the new buildings achieve through expensive artificial acclimatisation is achieved in these buildings with success. (Figure 4.2.12) There are complaints from the dwellers like the winds coming through doors and windows. This problem can easily be overcome by maintaining these elements regularly and applying some hints given in this handbook.

Most of these buildings are ideal for small families. They originally have no wet spaces within the building. Some only have a kitchen in the upper floor. Yet, the ground floor, which has been used for storage purposes in the past provide adequate space for addition of wet spaces without changing the plan scheme. There is always a winter room in this floor. Therefore, the entrance floor provides what any two-storied house provides with just a little alteration. In the upper floor, there are three or four rooms, which is more than enough for any modern family.

Other small usage problems can easily be overcome by the help of an expert, without altering the plan scheme. These buildings provide you a life style that only very well thought upon modern buildings and modern settlements may provide.

What is attractive with these buildings is their authenticity. They are beautiful as a whole; with all of their features. The town is beautiful with its old stone buildings and streets. It has a great potential for tourism only if it can be kept as it is. Nobody travels so far to see an altered or copied past. They want to see the real past, which they can touch, walk through its streets, and feel the real people, who had constructed this city, and who are your ancestors. They come to see a town, which is protected as a world heritage, as a very precious piece of the memories of the world. They want to see a part of the values that added to our knowledge of history, of the past cultures, living styles, the way they used their knowledge and sources to construct a strong, well designed building. The most important thing is that,



they want to remember the values that they forgot through the time. This is the story that this town tells them. The story, which you had a chance to hear for all your lives. Because you are lucky enough to be a living part of that very story.

This town has a great tourism potential if it can be kept as it is, and if its buildings are well maintained. There is sea and fish all along these shores. However, this town is one of the few that could be kept as a whole. This is a chance for you. Because you will never forget the lessons of the past, and because you have a chance to tell it to the others.

#### 4.3 How to Use the Handbook

This handbook was arranged in a way to provide an easy access for you to the items that you want to have information about. First, determine the purpose to use this handbook. Find the related heading. There are three main headings. First section gives general information on the town; aiming to introduce the town to the user with its history, geography and the values that it possesses. Second section gives information on the possible problems that the door, window and shutter of your building may have, and on how to detect these problems. Besides, it includes basic information on the building in general. The third section gives all the information that the user will need to repair a door, window or shutter and besides, gives a checklist for maintenance and explanation on how the user will maintain his building.

Let us say, you are trying to find the problems of your door, window or shutter. You should start from the second section: First, determine the material of the door, window or shutter that you want to inspect. Read the information on this material. Note down the possible problems of the material. This section will also guide you on whether you should consult an expert or not. If it says that, you need a professional help for a particular

problem, then, you should immediately seek for an expert guidance before any more investigation. This is vital for the life span of your building, and to avoid bigger problems in the future.

Secondly, read under the heading of the element in question. The same warnings and suggestions for the prior section are valid for this section, too. After finishing to detect your element for possible problems, the third step is searching for the solutions suggested in the proposals section. Read the information on the properties of the element in question. Find the type of your door, window or shutter from the architectural typology plan. Read the information on the elements problems and their solutions. Find the problem that you observed in the element according to the explanations and follow the instructions. After you solve the problem, remember that maintenance is always the easiest and cheapest way.

#### 4.4 Principles of the Handbook

Every suggestion or solution in this handbook is based on some basic principles on its approach to traditional buildings and on the suggested interventions. These principles are formed based on international charters, which are prepared for the conservation of cultural property and the laws concerning the conservation of cultural property. These principles will guide you in understanding how to approach your problems. The scope of this handbook is to provide the user with a simple repair and maintenance handbook, so that he can make simple repairs and maintenance, and that he can solve simple functional problems.

#### 4.4.1 Recommendations for the User

It is very important to understand the architectural and historical value of your building before any intervention, as the owner and/or the user of the building. The building is valuable with every single architectural element that it possesses. It is important to protect the building as a whole, with all of its architectural features like doors, windows, shutters, cupboards, stoves, ceiling, etc. Materials, features, finishes, construction techniques that characterize a historic property are a part of its historic character. It is recommended that you repair historic materials rather than replacing them. In this way, the building can keep its authentic features and retain its character. Remember that the authentic elements are important parts of the building. Your building is valuable with these elements. You can make replacements, if you have to, with the same material as the original. Look for contemporary methods of insulation of your building, rather than replacing your doors, windows or shutters. Interventions with modern material need to be detailed with care. Try to use the minimum amount to solve your problem. Ware making electrical or heating installation, it would be better if you consult an expert. He would help you to chose an efficient system that would give minimum harm to the building physically and visually. Remember that there are many timber elements in your building. Any system installed has to have adequate insulation. This is vital to prevent any risk of fire and colour change in timber. Before making any repair or alteration in your building other than those explained in this handbook, it would be for your own convenience to consult an architect, preferably a conserver architect. Remember that legally your project has to be approved by your Local Preservation Committee (İzmir Koruma Kurulu 1. Bölge.) When dealing with a traditional building, it is important to chose the methods of intervention with careful assessment of the severity of the problem. Once you give harm to an original peace, there is no way back from such actions! Is

recommended that you maintain your building on a regular basis. Simple repairs, regular painting and checking your roof after every two- three years or after storms would save you lots of trouble and money in the long term. Besides, your building would be more comfortable to live in. Adjacent constructions should be carried out with ultimate care. The new building has to have its own walls, and it is in no way acceptable to pull down a wall of the historic building, even in cases where the wall is a common wall. Make sure that adjacent buildings should meet the requirement of the conservation planning in the area. In any case, it would be better if its height is lower than the buildings in adjacent lots. It would be better for you and for your building if any restoration process to adapt the house for contemporary use, dealing with structural problems is carried out by an expert. In addition, remember that an intervention of that large a scale is beyond the scope of this handbook means that you need an expert consultation.

#### 4.4.2 Recommendations for Repair and Maintenance of Doors Windows and Shutters

The principle aim is to be able to keep the original element in its original location. It is very important that any necessary repair is done with original materials, where possible. It would save you a lot of trouble in the long term if you give prior importance to protective measures. Replace the missing parts of the elements with matching materials. Make sure that the replacements bear no ornamentation. When a window or shutter is missing, search for other similar elements within the same building. If there are other windows or shutters of similar size and location, than with the details of these, a simplified window or shutter will be suggested. Same location means that the windows or shutters in question are on the same floor and on the same façade of the building. If a similar window or shutter of the above qualifications does not exist, than a contemporary window is suggested. This suggested element is always suitable for the building, bearing similar

characteristics of the other elements. When a door is missing, it usually is not possible to determine the original details of it. So, in this case, you will have to use a new door. If you want your building to retain its aesthetic features, make sure that this door is simple, and is in coherence with the general characteristics of the architecture of the area. In many cases, the original element may be lying in another part of the building. Before fitting any new element, make a thorough search within the building. In case of air flow problems, use simple insulation materials instead of changing the whole element. Drawings in this handbook are sample drawings. They are not exact drawings of your element. Remember that before any repair, you will have to adapt the drawings according to the size of the opening of the element in question carefully. If you cannot find your element within these drawings, it would be better that you consult an expert before attempting to repair or change the element. Otherwise, you may harm the element or the building in an unrepairable way. If you feel you cannot adapt the drawing representing the type of your element according to the size of the opening, then consult an expert for professional help. This would save you time, money and trouble.

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**PREPARATION OF A MAINTENANCE, SIMPLE REPAIR,  
AND INTERVENTION HANDBOOK FOR  
YENİ FOÇA- İZMİR**

**VOLUME II**

**A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES  
OF  
THE MIDDLE EAST TECHNICAL UNIVERSITY**

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## CHAPTER 5

### INFORMATION ON DOORS WINDOWS AND SHUTTERS

#### 5.1 Typologies

The aim of this section is to give the typologies for doors, windows and shutters. Typology is a method of grouping same type of items; e.g. windows, under subheadings according to their similar characteristics. This way, it will be easier for the user to use this handbook. In the typology, new doors, windows and shutters are not included. This roughly covers the elements made before 1920's and the ones constructed with the same technique and dimensional properties afterwards.

Window typology is prepared according to their construction details, and division of openings. Construction details are the details of the sash profiles, details of sash and post connections and wall connection details. The first grouping is done according to these details. Then, windows of the same details are regrouped within themselves according to the division of their openings. A further grouping is done for the lintel types. Lintels are grouped according to their shapes; like whether they are arched or flat.

Shutter and door typologies are prepared with similar methods. In shutters, lintel typologies are not included as they are studied within the window typology. In doors and shutters, the main division is the material with which they are constructed. So, in these elements the main division has the headings; wooden and iron.

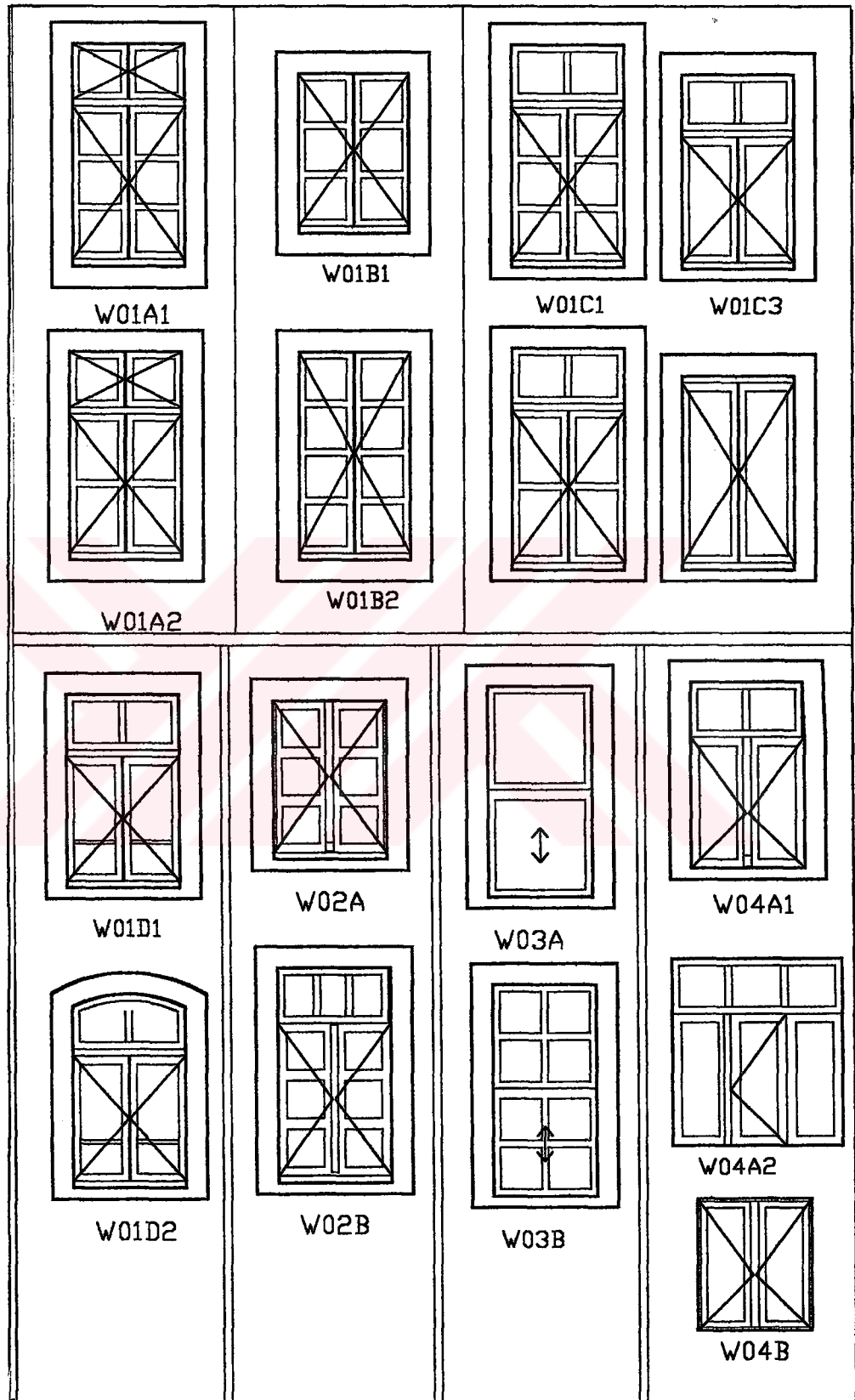


Figure 5.1.1 Window Typology

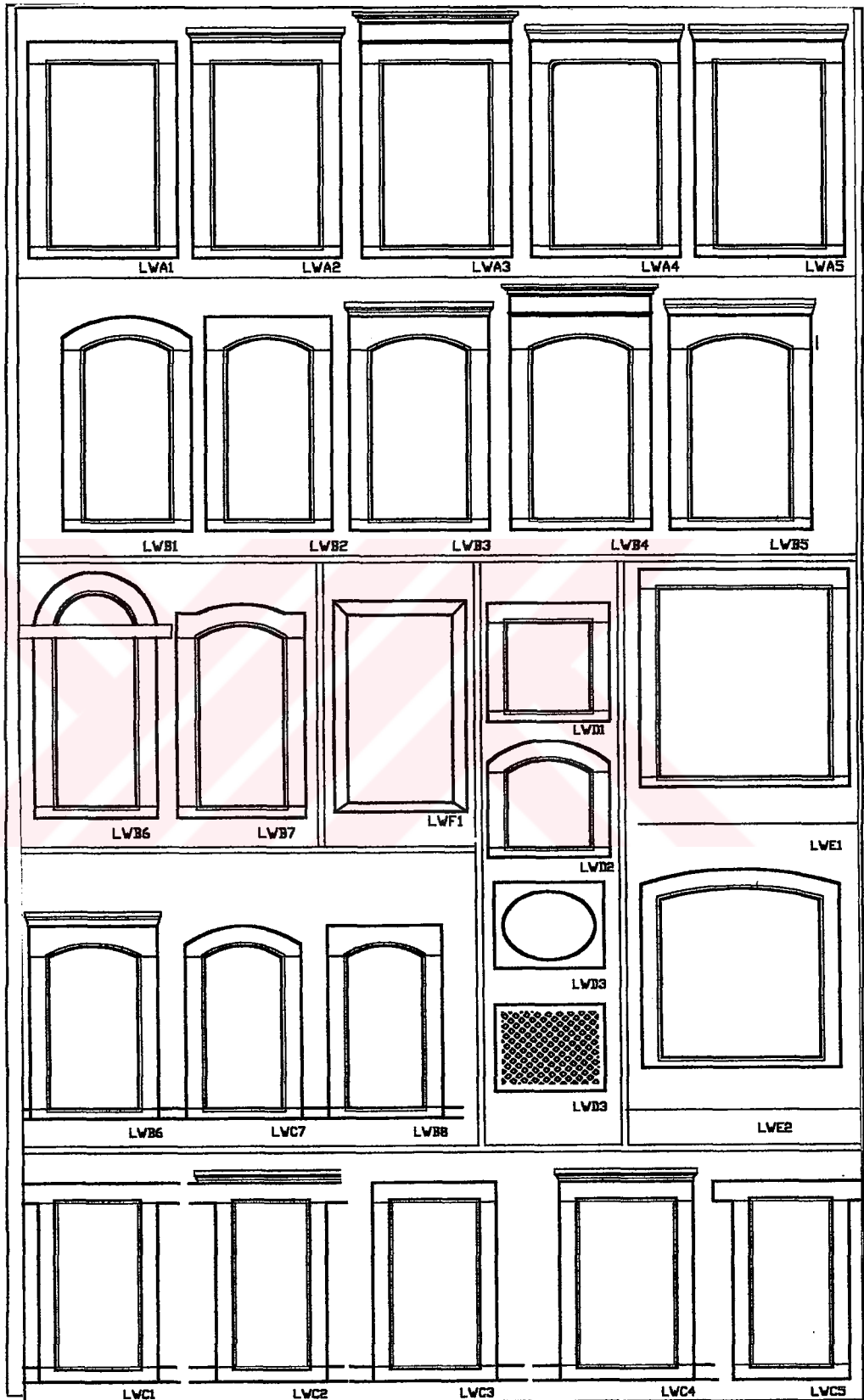


Figure 5.1.2 Window Lintel Typology



Figure 5.1.3 W01A1  
Fevzi Çakmak Cad. No:40



Figure 5.1.4 W01B2  
Kaptan Sokağı No:7



Figure 5.1.5 W01C1  
Fevzi Çakmak Caddesi No:44



Figure 5.1.6 W01C1  
Karagöz Sokağı No:30



Figure 5.1.7 W01C1  
Mesut Sokağı No:1



Figure 5.1.8 W01C3  
Bayraktar Sokağı No:13



Figure 5.1.9 W02A  
Bayraktar Sokağı No:25



Figure 5.1.10 W03A  
Sahil Caddesi No:63

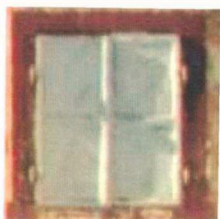


Figure 5.1.11 SM02A  
Fevzi Çakmak Caddesi  
No:48



Figure 5.1.12 SM03A  
Karagöz Sokağı No:11



Figure 5.1.13 SM04A  
İzmir Caddesi No:20



Figure 5.1.14 SW01  
İzmir Caddesi No:58



Figure 5.1.15 SW02  
İzmir Caddesi No:2



Figure 5.1.16 SW05A  
Şirin Sokağı No:8



Figure 5.1.17 SM04B  
İzmir Caddesi No:36

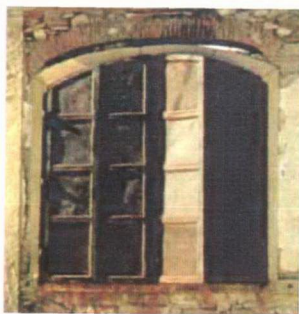


Figure 5.1.18 SM04C  
İzmir Caddesi No:42

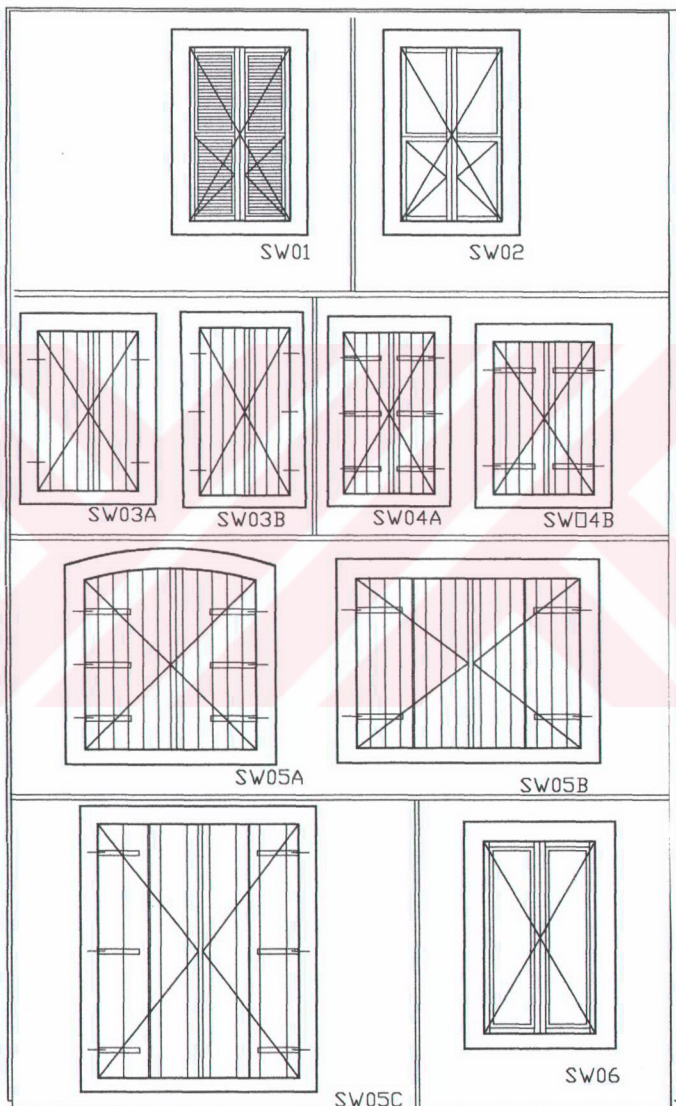


Figure 5.1.19 Shutter Typology (wood)

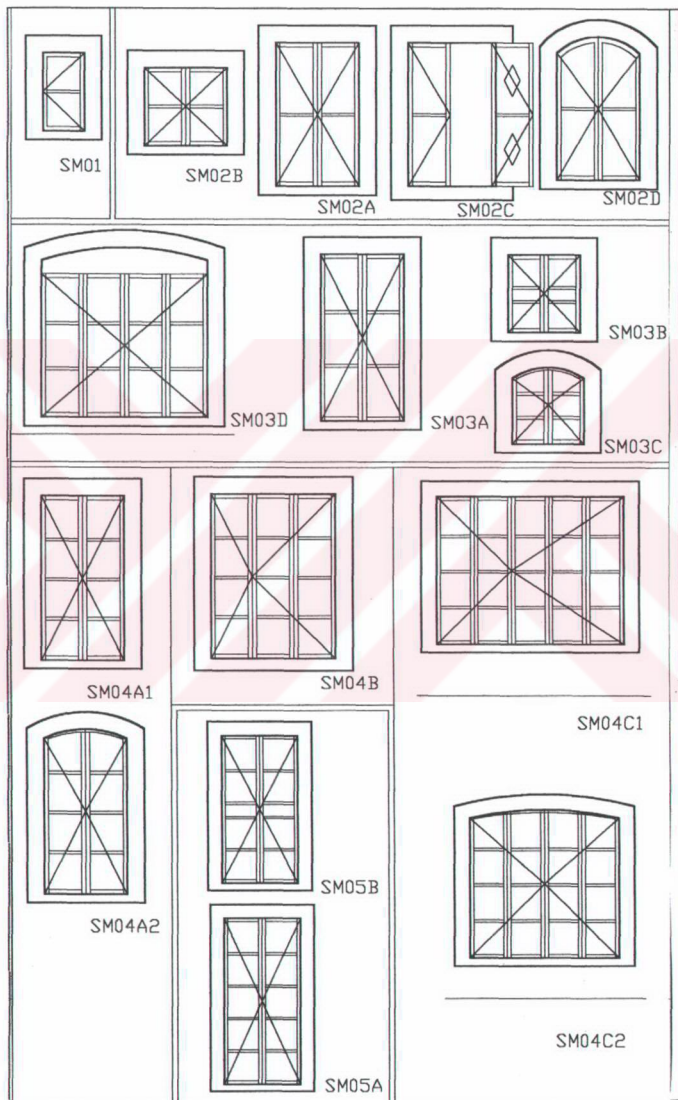


Figure 5.1.20 Shutter Typology (iron)





Fig. 5.1.21 DM01A1  
İzmir Caddesi No:48



Fig. 5.1.22 DM02A3  
İzmir Caddesi NO:39



Fig. 5.1.23 DM02A1  
Karagöz Sokağı No:30



Fig. 5.1.24  
DM02B2  
Karagöz Caddesi  
No:22



Fig. 5.1.25  
DM02C  
Hayat Sokağı  
No:1



Fig. 5.1.26 DW02A  
İzmir Cad. No:47



Fig. 5.1.27  
DW01A1  
Fevzi Çakmak  
Caddesi No:73



Fig. 5.1.28 DW04A2 –  
İzmir Cad. No:54



Fig. 5.1.29 DM03B  
İzmir Caddesi  
No:28



Fig. 5.1.30  
DM03B  
İzmir Cad. No:40

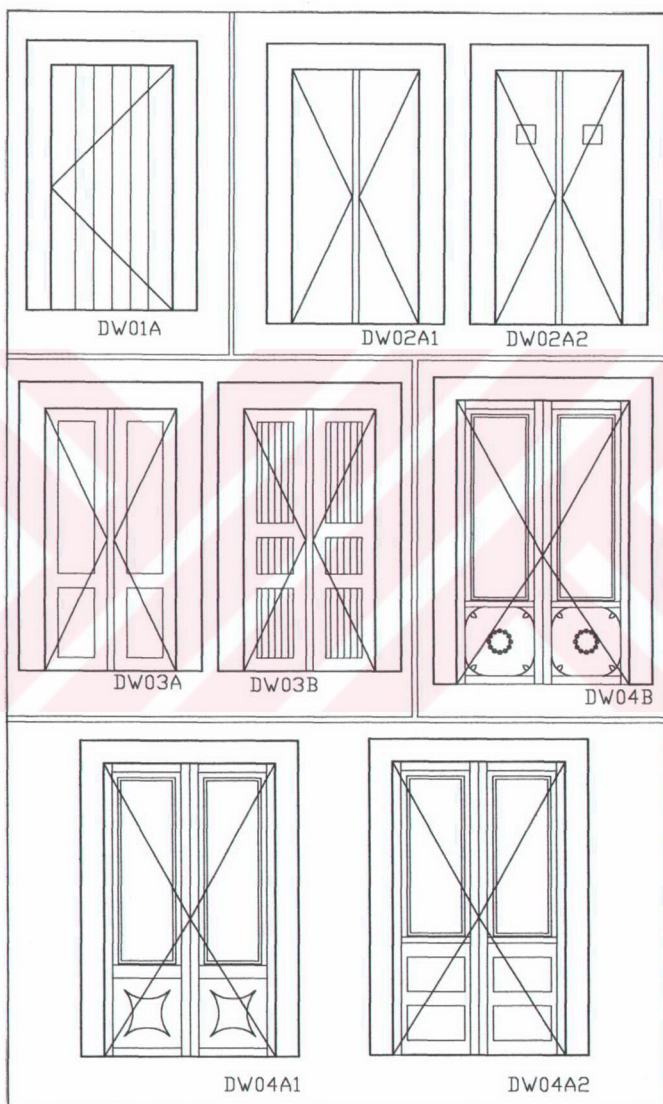


Figure 5.1.31 Door Typology (wood)

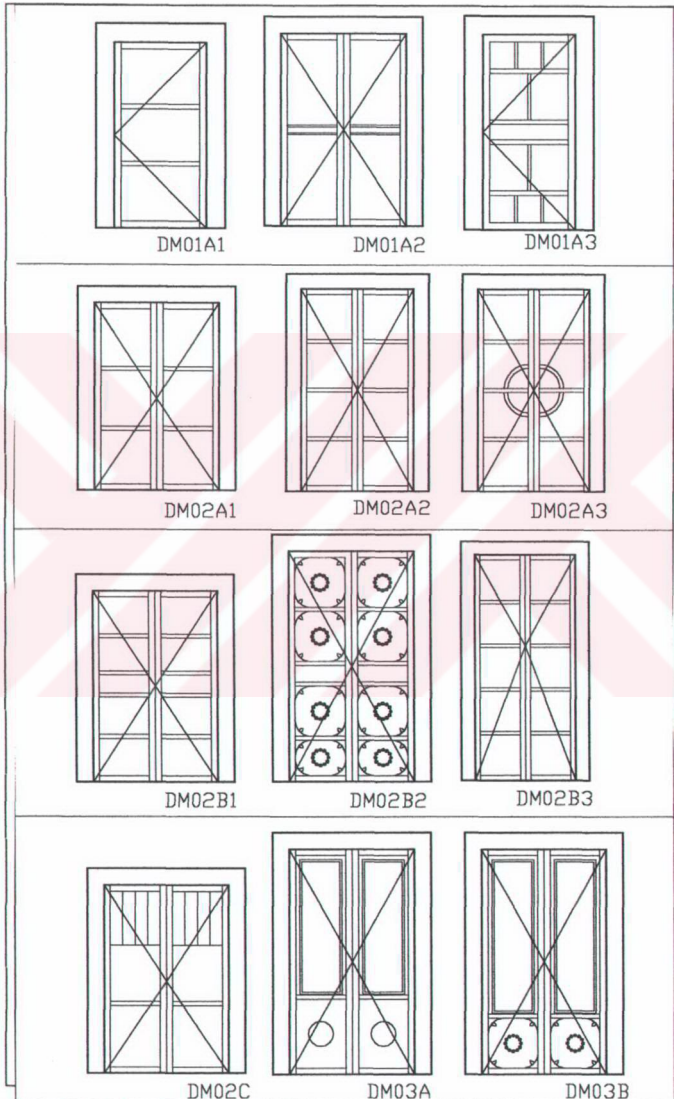


Figure 5.1.32 Door Typology (iron)

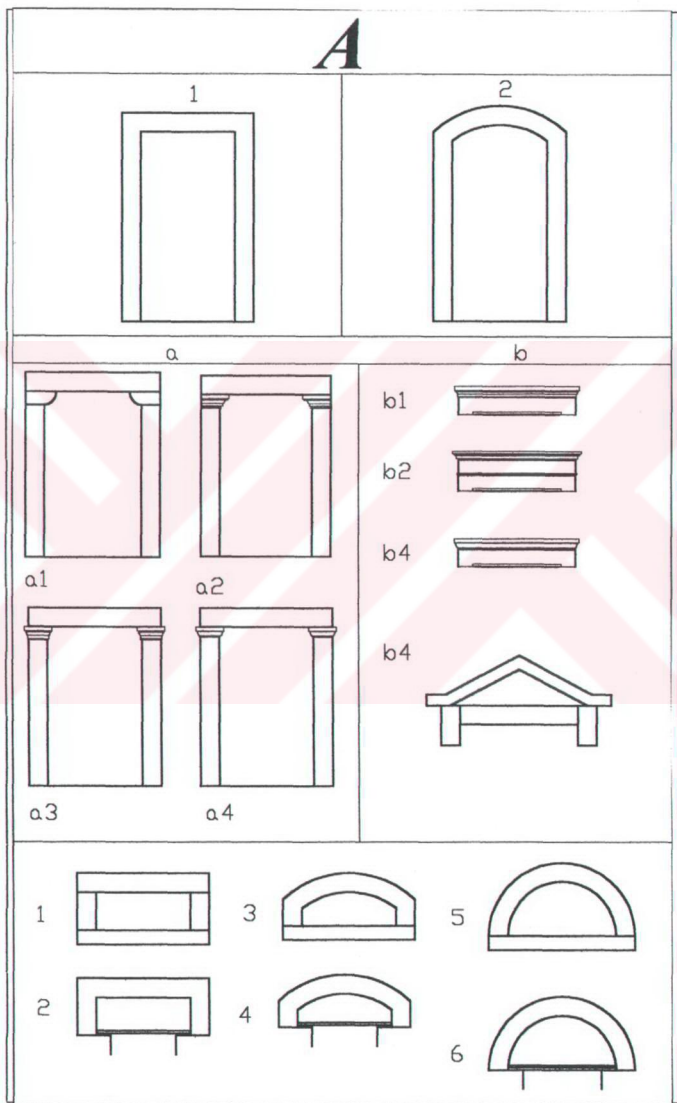


Figure 5.1.33 Door Lintel Typology I

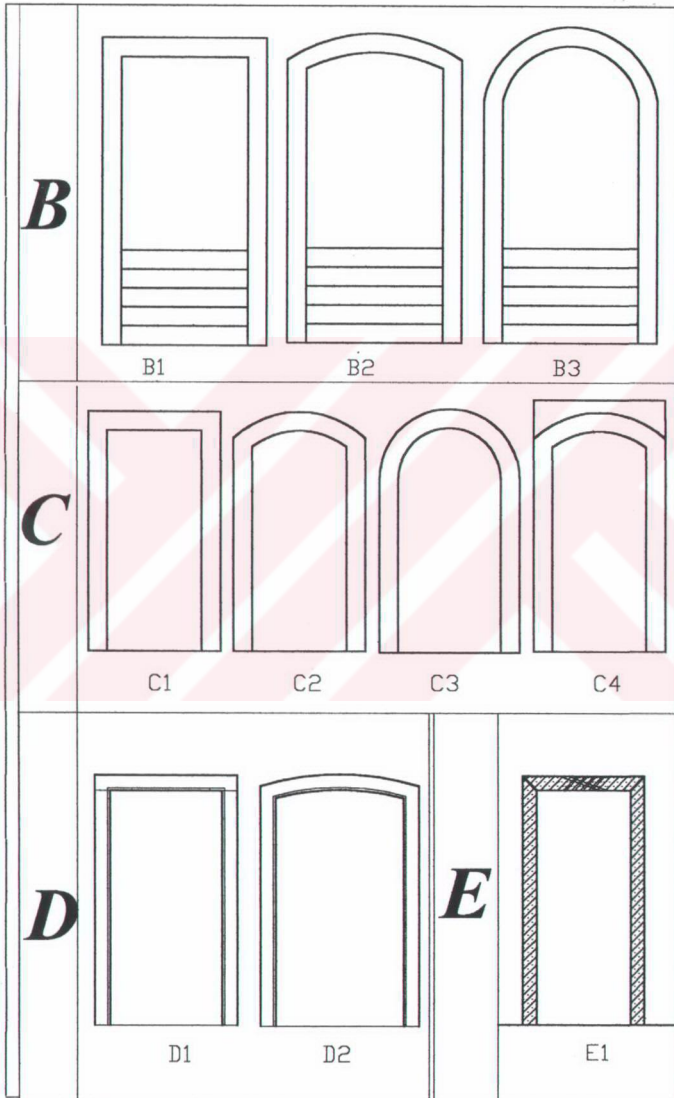


Figure 5.1.34 Door Lintel Typology II



Figure 5.1.35 Façade Typology I



Figure 5.1.36 Façade Typology II

In shutters, sub division is done by their construction techniques and use of material in wooden shutters, and in metal shutters, according to the horizontal divisions. Doors are regrouped as to whether they have glazing or not. Further subgroups are formed, like in windows, according to their construction details.

## 5.2 PROBLEMS AND RECOMMENDATIONS

### 5.2.1 General Problems of the Building and Recommendations

PG01. Dampness: Colour of the damp material component is darker. If it is exposed to atmospheric effects, there may be biological formation in the damp area.

PG02. Insect: See item (PW06).

PG03. Rot, Fungi: See item (PW09)

PG04. Thermal Degradation: When the timber is suffering from thermal degradation, fibres frequently gouge out from the surface, while in normal wood, it abrades away slowly. It may be caused by sunrays or lighting features. If the source is a lighting feature, the timber around the may have blackened to some extend.

PG05. Partial Loss: A part of a building component was decayed or removed.

PG05. Element Loss: An original building component was removed or lost.

When you detect an insect activity in any part of the building, make sure to detect every timber component of the building. Check the roof and the basement very carefully as these areas are very liable to remain damp and



even in used buildings, they are not under continuous monitoring. In cases where you cannot see the floor beams and if there is sign of insect in the floor boards

### 5.2.2 Check for the Condition of the Fabric

While checking a traditional building, it is very helpful to have a checklist prepared beforehand in order to ensure that every part of the building is surveyed carefully. By the help of this systematic check, there will be no chances to overlook a problem and all the features of the building will be inspected carefully, knowing where to look for which problem. When you detect the problems of your building after this check, either you are told to check for solutions in the handbook, or to consult and have a restoration project prepared.

External Survey: This survey is done only from outside the building.

- **Roof:** Roof is the protective cover of a building. It consists of a structural system that bear the weight of the covering element, an insulating material, a secondary system that carries the covering element, and the covering element, which is terracotta tile. There is no original water drainage system in the roofs of this area. All roofs in the survey area are either originally pitched or the flat roofs were converted into pitched roofs. There are no flat roofed buildings within the survey area. This survey deals with the condition of tiles and the defaults that can be observed through exterior survey.
  - Check broken or missing tiles. Replace them with adequate ones,
  - Check slipping tiles. Tie them carefully,
  
  - Check undulations in the roof cover. This may be a sign of structural problem. A building with a structural problem should be inspected by an

expert immediately. A restoration project should be prepared, urgent precautions should be taken.

Roofs are the key elements in the protection of a traditional building. Any leaking occurring in the roof may even cause serious structural problems in the end. Therefore, a regular maintenance is vital.

- **Walls:** Walls are the elements that form the shape of the building. They carry the weight of the roofs and floors. They protect the building from exterior effects. Stone walls usually have five layers. First layer is the exterior plaster, which is not seen in this area very frequently. The second and fourth layers are of roughly shaped cut stone and they form a flat surface on the surfaces. The third layer is the rubble stone infill in between these two layers. The innermost layer is the interior plaster. The concern of this section are the exterior plaster, if exists, exterior surface of the wall and the mortar that bonds the stone.
  - Check cracking, bulging or settlement. Cracks and bulging may be signs of structural problems. An expert should decide whether they are caused by a structural problem or not. If so, a restoration project should be prepared along with urgent supportive intervention,
  - Check signs of closed/changed door/window openings. Check whether the materials used for the action are traditional materials or not. Consult an expert on the possible damage of this action to your building,
  - Check the wall if there are repaired/added parts or the areas around it have a colour change or dampness. If you see dampness and colour change, consult an expert,
  - Check dampness, staining or surface plant growths. See if there is a way that you can prevent the wetting of the wall for an immediate measure, and then consult an expert,
  - Check balconies. Check cracks in the connections to the wall. Check the rails and floor material. If you see cracks in these connections, do not use the balcony and consult an expert,

- Check erosion of mortar. See the relevant section,
  - Check cracking along mortar joints. See the relevant section,
  - Mortar jointing should be slightly recessed in stone masonry. Check any other jointing. See the relevant section,
  - Check erosion of stone. If you detect serious erosion, consult an expert.
- **Windows, Shutters and Doors:** These elements are the main concern of this handbook. They are located on the outer walls of the building.

A window consists of two main sections. The first part is the frame. This is attached to the window opening; to the walls. The window sash, the second part, is fixed onto this frame. The vertical elements that form the sash are called the posts and the horizontal elements are called the lintel. The elements used for division within the sash are called sash bars or division bars. Glazing is placed onto these horizontal and vertical timber elements and is fixed with small nails and putty.

The main function of shutters is to protect the window frame from external effects and ensure a long life for it, and to protect the building from excess weather conditions in order to provide a more convenient climate within the building. Its maintenance has a key role in the protection of the window frame. Shutters have two parts. The main part of the shutter covers the window opening. The second part is the hinge, which is called a "kuşluk". This connects the shutter to the wall. In some cases an iron bar is mounted on the wall and the kuşluk is connected onto this bar.

A door, like the window, consists of two main parts. The door frame is connected to the wall. The second part is the wing of the door and is connected on this frame with hinges. This hinge too is called kuşluk. Rarely, there are some other types of hinges, too. The wing may be a simple one formed with timber elements brought together and fixed with nail, it may be an iron door consisting of iron sheets that are fixed between iron bars.

Alternatively, it may be more complex with ornamentations, an opening, glazing and shutter. It may have panels or iron ornamentations on the exterior surface.

For any further information on materials and their problems, check the Technical Data given in Appendix D.

- Identify the type of the window from the Window Typology List,
- Check rot in frames,
- Check places where fibres have frequently gouged out from the surface. In normal wood, it abrades away slowly,
- With a thin and sharp metal object, check if the wood is firm. Note the areas where it has softened with accuracy. Make sure that the object that you use for this action is very fine. If you detect any softening, consult an expert. This may be sign of a serious wood defect,
- Check insect holes in the wood and note the diameter of the holes. Consult an expert. The problem may be serious and may have spread beyond the visible sections of the wood, and you may not decide on what insecticide to apply ,
- Check change of colour in wood. The colour may be darker or lighter in colour than it should be. Note down carefully the location and characteristics of discolouration. See the wood section,
- Check failure of putty. See the relevant section about the particular architectural element,
- Check any missing elements. See the windows section,
- Check sagging of the wings. See the windows section,
- Check the paint quality of the element. Check any cracks and erosion in the paint layer,
- Check for bulging points on the paint layer of a metal element,
- Check rust in the hinges (kuşluk). See the relevant item in the 'Metals' section,
- Check rust in cast iron elements. See the relevant item in the 'Metals' section,

- Check any missing elements. Try to find it if possible,
- Check sagging of the wings,
- Check the type of the hinge when there is no wing left from the drawings,
- Check rust in the iron railing of the clerestory lighting.

Survey of the Interior of the Building: The interior elements of a building are the subject of this survey. The roof structure, interior walls, inner section of the exterior walls, floors, ceilings, and the visible structural system.

- Roof: Any part of the roof that is under the tile cover is included in this survey. This means the structural system, the insulation materials, the under tile materials.

- Check signs of rain penetration,
- Check evidence of condensation,
- Check dampness, staining mould growth or wood rot in the wooden elements,
- Check if the roof space is accessible,
- Check any water and heat insulating system,
- Check any present dust preventing system.

- Floors and Ceilings: Ceiling of a building is the part that covers the structure of the roof or the floor. Floor is the structural system that spans walls, and where you walk on. It consists of main beams and shorter and thinner beams that are laid over these in the opposite direction. The upper section of it is covered by a flooring material. This is always timber in these buildings. The lower part is also covered to hide the beams and this is called a ceiling.

- Check if the wood is firm with a thin and sharp metal object. Note the areas where it has softened, with accuracy. Make sure that the object that

you use for this action is very fine. If you detect any softening, consult an expert. This may be sign of a serious wood defect,

- Check insect holes in the wood and note the diameter of the holes. Consult an expert. The problem may be serious and may have spread beyond the visible sections of the wood, and you may not decide on what insecticide to apply,
- Check any missing parts,
- Check damaged jointing,
- Check gaps between the floor and the wall,
- Check gaps between the floor cover.

If you see any of these problems, consult an expert. You may have to have a restoration project prepared.

- **Structural system- posts, beams:** These are the elements that make the building stand, other than walls. Posts are the thick timber elements that are placed vertically within the walls, or individually with regular intervals. The weight of the building is carried by these elements in the inner section of the structural system. The outer cover is mostly formed by stone load bearing walls. They are mostly visible when they are standing alone or when the wall is not plastered. Beams are the elements that span the building. They rest on the stone walls and timber posts. They form the floor of the building.

▫Check rot in the beams and timber posts where they are visible. See in Appendix,

- Check insect holes in the wood and note the diameter of the holes. Consult an expert. The problem may be serious and may have spread beyond the visible sections of the wood, and you may not decide on what insecticide to apply,
- Check bending and sagging.

If you see any sign of a problem, you should consult an expert. Beams and posts are vital for your buildings and most of the time; they are covered by floor and ceiling covers and plaster. Therefore, any small sign of a problem may be widespread and may cause serious structural problems if necessary precautions are not taken in time. It is suggested that you have a restoration project prepared for thorough inspection and intervention.

### 5.2.3 Materials

#### 5.2.3.1 Timber

In this section, all the problems that can be seen in the wooden elements in the site are listed. All the traditional windows that were included in the study are made of wood. Other materials used are contemporary. As for doors and shutters, in this section you will find information on the traditional wooden elements only. The iron shutters and doors, and the metal joinery of timber or iron elements are studied under the Metals section.

Recommendations for each problem will be given right after. In cases, where the problem exceeds the limits of this handbook, the user will be guided on what to do and whom to ask. In addition, possible solutions will be suggested to educate the user on what to ask for from the experts that he will contact.

Secondly, detailed description of the windows that are included in the typology chart will be given. Solution proposals on how to replace the missing parts, how to handle air circulation problems will be given. In addition, although not recommended, if the user believes it is impossible for him to use the house with that window and insists on changing it, suggestions on the type of window he can install will be given. This section

will be supported by detailed drawings of the original window and of the suggested modifications on it.

**PW01 – No Paint:** There is no sign of any paint layers or lacquer. Either the element has never been painted or it has completely lost its paint. This will leave the timber unprotected against water penetration, ultraviolet rays and other climatic effects, thus causing the material to deteriorate. If the timber is unpainted and is still not suffering from any problems, consult an expert before applying paint. The timber used may have been chemically treated with traditional methods.

**IW01.** If there is no paint or any sign of it on the surface, first step should be to look for other defects on the element. For this, you can use the list in the problems section. If there are no other problems, you should try to find out the original colour of the element. If you can detect the original colour, use it, if there is no evidence of the original, then choose an appropriate colour. Then follow the steps in (IW02)

**PW02 – Erosion of Paint:** There is sign of single or multiple paint layers, which in some sections is unable to cover the timber surface properly. This will permit water penetration into the material, thus causing the material to deteriorate.

**IW02.** There may be remains of some paint on the element or the existing paint may have cracked or worn out. Check if it is the original paint or the original colour used on the element. If you can detect the original colour, use it, if there is no evidence of the original, then choose an appropriate colour. Look for other defects on the element. For this, you can use the list in the problems section. If there are other problems, first go to the relevant section and solve that problem. Then follow the steps below:



- Remove the wings from the sash frame,
- Check for any material problems that may were hidden by the frame,
- Remove the paint. First scrape the outer layer,
- Do not use sharp objects that could harm the timber,
- Preferably, use a sandpaper of various thicknesses. For the rough work, you can use coarse sandpaper, as you come closer to the timber, you should use a finer sandpaper so as not to harm the timber,
- Do not use any chemicals to remove the paint. This would harm the material instantly or its remains may react with the material in an unpredictable way,
- Once the paint is removed completely, recheck all the components of the element for any signs of a problem that may were hidden by the paint layer. Use the problems list,
- If you detect any problems, first go to the relevant item and fix the problem,
- Make sure that all the components are dry.

Follow the steps in item IW01

**PW03 - Dampness. Its symptoms are:**

- The colour of the timber is darker,
- When you touch the timber in the dark coloured section, it is cold and damp,
- If the element is painted, the paint may be flaking or swelling.

IW03 . Try to find the source of dampness. In the area, no detailing problems of the original elements were detected. If there is a problem caused by detailing, look for any alterations on the details of the element. Use the typology list, find the type of your element and check the details.

If the element is located in the entrance floor, the problem may be caused by raising dampness from the street. If there is change of colour in the plaster and biological formation, there is a serious drainage problem. Apply the municipality for the solution of the problem. If the element is located in the upper floor, check the roof for any leakage. If you cannot determine the cause of the dampness or if it is something that you cannot handle, consult an expert. A restoration project will be needed for further inspection and for a probable need for re-detailing.

After the source of dampness is eliminated, dry all the timber components. Look for rot, Fungi or insects. If there are no problems, apply item IW01 or IW02 according to the presence of paint.

PW04 - Discolouration of timber. The colour of timber is either darker, or a whitish colour. This may be a sign of dampness, rot or thermal degradation.

IW04. Discolouration of timber may be caused by a rot (IW09), dampness (IW03), or thermal degradation (IW08). If you cannot detect the reason, you should consult an expert.

PW05 –Swelling and Softening in Timber. This may be due to dampness, rot or fungi.

IW05. This is sometimes caused by dampness only, but the timber may be infested by a rot or insect, too. Look for other symptoms (IW06) (IW09). If the reason is dampness only, apply item (IW03). Remove the paint completely as described in item (IW02) in order to dry the timber and to look for rot, fungi or insect. After you dry the timber, and eliminate the source of dampness, apply a fungicide and insecticide as a precaution. Some fungal spores or insect larvae may be present in the within the timber as a result of continuous dampness. Then apply item (IW01).

PW06 – Insect. Presence of insects is a very rarely seen problem in the area, in the buildings that are in use. For empty houses, as only a few houses could be seen, no healthy conclusion could be reached. Yet, in some examples where insect holes are detected, the holes were around 1 mm in diameter and the insect causing the problem had been cleared from timber by some insecticides.

IW06. When you detect an insect activity in your building, you should consult an expert. You cannot determine the limits of the problem. You may have to have a restoration project prepared according to the directions of the expert.

PW07 – Material problems as a result of dampness. The timber swells where it stays wet for prolonged periods. In the long run, wetness may cause bio formation, moulds and rots.

IW07 – Dampness causes the material to swell at first and later, the timber becomes a suitable medium for insects and biological formations like rot and fungi. So, when dampness is detected, first the source of dampness should be eliminated. Then the element should be dried and checked carefully for any infestation.

PW08 – Thermal degradation. When the timber is suffering from thermal degradation, fibres frequently gouge out from the surface, while in normal timber, it abrades away slowly.

IW08 – Painting the element and maintaining it regularly would protect the timber from the effects of Ultraviolet Rays. See item no (IWS01).

PW09 – Rots. Rot is seen only if the moisture content of the timber is above 22%. If the timber was wet for a long time, the symptoms of rots listed below should be carefully looked for. They may cause timber to decay seriously if not cured and if the timber preservation conditions are not healed.

IW09 – Fungal Decay may be a very serious problem for the building. If you see any symptoms of it, consult an expert and see the technical data section for any immediate measures that you can take in order to prevent its spread.

PW10 – Loss of strength in the hinges: The hinge may not be able to carry the wing anymore. This may be because of loosening of connection to the wall or the element wing, or because of the weakening of the metal due to rusting. The wing does not function properly and sags.

IW10 – When the hinge has become loose and cannot carry the wing properly, there may be various reasons to this. The problem may be with the timber that the hinge is attached. In this case, refer to items PW06, PW05, and (PW09) and the solutions suggested for them. If the nails have rusted or got lost, replace them with new ones having adequate thickness. Do not try to fix the hinge with a nail that is too large for the holes or one that has a small diameter for holding the hinge in place properly. If the hole that is left in the timber by the nail is too large, if the hinge was forced by the wing, fill the hole by a timber paste. If the hinge has failed because the wing is heavy for it, consider adding a hinge symmetrically to avoid future problems. For this, use the same type of hinge or a similar one in size and shape so that it will not disturb its appearance. Refer to the drawings of the relevant element type.

PW11 – Partial Material Loss: An element of the element was lost, deteriorated or damaged partially for any reason.

IW11 – When a part of the element material was lost by a mechanical reason, decay or insects, it has to be replaced by a material of the same type. If the cause is insect or decay by fungus, then insecticide or fungicide has to be applied. Remove the decayed part carefully. If the part was lost by itself, smoothen the end of the material in a way that a piece of section can be easily fitted next to it. Prepare the new section from the same type of timber, using the relevant drawings. Use an appropriate timber adhesive. In addition, epoxy resins can be used to copy the lost section. This is a more suggested way, as epoxy is a durable material, which can easily be shaped. There are two important points for using this material, though. First, it should never be exposed to Ultraviolet Radiation. It should be painted regularly. Secondly, it is a two-component material, where ratio of the mixtures to be used may vary according to the situation. It dries quickly and it is difficult to store. Because of these reasons, it is suggested that, if you chose to use this more durable and convenient material, you should work with an expert.

PW12 – Loss of Material: An element of the element was lost totally.

IW12 – When one entire section of the element is lost, produce it exactly as it is given in the relevant drawings. Use the same type of timber. Before painting, apply fungicide and insecticide. Then paint carefully as stated in item IW02.

PW13 – Loss of Wing: A wing of the element was lost or removed from its place.

IW13 – When one wing of the element is lost, produce it exactly as it is given in the relevant drawings. Use the same type of timber. Before painting, apply fungicide and insecticide. Then paint carefully as stated in item IW02.

PW14 – Loss of the Window: The element was lost or removed from its place.

IW14 – When the entire element is lost, check the other elements on the same floor and of the same size. If there is only one possible type that the element can be, use the details given for that type to reproduce the element. Produce it exactly as it is given in the relevant drawings. Use the same type of timber. Before painting, apply fungicide and insecticide. Then paint carefully as stated in item IW02.

#### PW15 – Rusting of the Hinges

IW15 – When the rust is mild or medium, clean it with a sand paper carefully. Make sure that there is no rust left on the surface. Then paint it and fix it back in its place. If the rust is widespread, where the hinge will lose its strength when the rust is cleaned, then the hinge has to be reproduced carefully.

PW16 – Broken Hinge: The hinge broke or came out of the wall.

IW16 – When the hinge is broken, solder it carefully and fix back in its place. If the hinge is broken because of rust, then see item IW15

### 5.2.3.2 Iron

#### Cast Iron :

Cast iron is an alloy with a high carbon content (at least 1.7% and usually 3.0 to 3.7%) that makes it more resistant to corrosion than either wrought iron or steel.

While molten, cast iron is easily poured into moulds, making it possible to create nearly unlimited decorative and structural forms. Unlike wrought iron and steel, cast iron is too hard and brittle to be shaped by hammering,

rolling, or pressing. However, because it is more rigid and more resistant to buckling than other forms of iron, it can withstand great compression loads.

Corrosion may simply be defined as the wearing away of material, usually gradually. When it is metal that we are talking about, corrosion is the process that changes a useful metal into a useless chemical compound. This means the destruction of the metals desirable characteristics or properties and its erosion. Corrosion usually affects only the surface of the material, forming a protective layer on the top, preventing further rusting. The most important point is that, corrosion weakens a metal. If left unprotected, the iron will corrode rapidly.

Oxidation occurs when water, either in vapour or in liquid form contacts the iron. The result formation is called rust in common. Rust may be yellow, bright orange, dark reddish brown, red or black. The presence of seawater or salty sea air will enhance the process of oxidization and increase the severity and the spread with which it occurs. Cast iron will usually form a light scale, and then resist further rusting.

#### Errors that Lead to Corrosion:

- Failing to coat iron so that it does not rust,
- Failing to protect iron from chemical attack,
- Failing to separate iron from cement mortar, cement plaster, concrete, etc.,
- Failing to separate one metal from dissimilar metals to prevent galvanic corrosion,
- Failing to take action when damage occurs.

PM01 – No Paint: There is no sign of any paint layers. This will leave the element unprotected against water penetration, and other climatic effects, thus causing the material to rust.

IM01. If there is no paint or any sign of it on the surface, first step should be to look for other defects on the metal surface. For this, you can use the list in the problems section. If there are no other problems, you should try to find out the original colour of the element. If you can detect the original colour, use it, if there is no evidence of the original, then chose an appropriate colour. Then follow the steps below:

- Remove the wings from the "kuşluk",
- Check for any material problems that may were hidden by the connection points,
- Fix the element according to the relevant drawings,
- If you need to use an air infiltration material, use the relevant drawing of the element type you are dealing with,
- Apply the below to "kuşluk" of the element as well.

PM02 – Erosion of Paint: There is sign of single or multiple paint layers, which in some sections is unable to cover the surface properly. This will permit water penetration into the material, thus causing the material to rust.

IM02. There may be remains of some paint on the metal surface or the existing paint may have cracked or worn out. Check if it is the original paint or the original colour used on the element. If you can detect the original colour, use it, if there is no evidence of the original, then chose an appropriate colour. Look for other defects on the element. For this, you can use the list in the problems section. If there are other problems, first go to the relevant section and solve that problem.

PM03 - Mild Rusting of the metal. There are spots of rusted areas where the paint has eroded. It is not widespread and forms a thin layer. Medium Rusting. Rusting is widespread, but it forms just a thin layer on the metal.

IM03 –When the metal is just starting to rust and the effected area is only forming a very thin layer on the surface, this is called a mild rusting. If the



rust is more widespread but the material is still strong enough to be used in its proper function, this is called medium rusting. When rust is in this stage in your element, you should sand it to clean the rust. Clean the rust carefully with the remaining paint. If the paint layer is thick, you can scrape it gently, without giving harm to the material. For cleaning process, you should remove the wings from the "kuşluk", so that you can reach every part of it and clean the rust properly. You should show special attention to the edges of the element. Use different grades of sandpaper, from rough to finer, during the process. Make sure the element is absolutely free of rust at the end of the process. There is one very important point after the cleaning process. Bare cast iron is very liable for corrosion. It may take minutes for the iron to start rusting after the cleaning ends. So, paint the material immediately with a corrosion-inhibiting primer before new rust begins to form. Preferably, the coating should be ready at the site, before the cleaning process starts.

PM04 – Severe Rusting of the metal. Whether widespread or not, it penetrates deep into the metal, especially in thin sections and decorative elements. Cleaning the rust causes the element to become brittle.

IM04 – If the iron has become to brittle because of rust, it is suggested that you replace it. Use the relevant drawings for the purpose. You should use cast iron of the same details for the replacement. Using a different metal will cause further corrosion. If the rusted component is a decorative piece of the element, two things can be done. If the material is strong enough to be kept in place, apply direct-to-rust paint as a primer. These are epoxy-mastic materials formulated for direct application over rust. After two coats of this primer, you should use a compatible alkyd or oil paint for other coats. Epoxy based materials tend to deteriorate when exposed to exterior conditions and the ultraviolet radiation. There are also rust-conversion coatings, which convert ferric oxide (rust) to a stable iron compound that then becomes a part of the painting. This should be used as a primer, too, and over it, other

coats of paint should be applied. Other method is, replacing the material by a non-profiled cast iron section. This method should be used only if the existing material cannot support itself, even after the application of the primer coating.

PM05 – Loss of strength in the hinges: The hinge may not be able to carry the wing anymore. This may be because of loosening of connection to the wall or the element wing, or because of the weakening of the metal due to rusting. The wing does not function properly and sags.

IM05 – When the “kuşluk” has become loose and cannot carry the wing properly, there may be various reasons to this. The problem may be with the iron that the “kuşluk” is attached. In this case, refer to items PM03 and PM04 and the solutions suggested for them. There may be a problem with the stone that it is attached. If the reason is that the stone has cracked or has surface deterioration, then you should consult an expert as this problem is beyond the scope of this handbook. You will need to replace the stone or reinforce it and this can be determined only after careful analysis carried on by a restoration specialist. Refer to the drawings of the relevant element type.

PM06 – Partial Material Loss: An element of the element was lost, deteriorated or damaged partially for any reason.

IM06 – When a part of the element material was lost by a mechanical reason or corrosion, replace the lost part. Have it cast again with exact details of the remaining portion of the profile. Use the drawings of the relevant element. Clean the paint of the whole wing and use the drawings to see the connection details. Then apply item IM01.

PM07 – Loss of Material: An element of the element was lost totally.

IM07 – When one entire section of the element is lost, produce it exactly as it is given in the relevant drawings. Have it cast again with exact details of the other wing. Use the drawings of the relevant element. Clean the paint of the whole wing and use the drawings to see the connection details. Then apply item IM01.

PM08 – Loss of Wing: A wing of the element was lost or removed from its place.

IM08 – When one wing of the element is lost, have it cast again with exact details of the other wing. Use the drawings of the relevant element to see the connection details. Then apply item IM01.

PM09 – Loss of the Shutter: The element was lost or removed from its place.

IM09 – When the entire element is lost, check the other elements on the same floor and of the same size. If there is only one possible type that the element can be, use the details given for that type to reproduce the element. Produce it exactly as it is given in the relevant drawings. Use cast iron of the given dimensions. Before painting, apply a rust-inhibitive primer. Then paint carefully as stated in item IM01.

PM10 – Rusting of the Hinges

IM10 – When the rust is mild or medium, clean it with a sand paper carefully. Make sure that there is no rust left on the surface. Then paint it and fix it back in its place. If the rust is widespread, where the "kuşluk" will lose its strength when the rust is cleaned, then the "kuşluk" has to be reproduced carefully. As the sections of the "kuşluk" in the area are quite thick, this is valid only for some extreme cases. Use directions for rusting and painting given in items IM01, IM03 and IM04

PM11 – Broken Hinge: The hinge is broken or has come out of the wall.

IM11 – When the “kuşluk” is broken, solder it carefully and fix back in its place. If the “kuşluk” is broken because of rust, then see item IM10.

When the “kuşluk” is lost, look for other “kuşluk” of the same element type in the same building. Probably, other “kuşluk” of the very element will be in their place. Have it cast with exactly the same details. Paint it following item IM01. Have it fixed in its place by lead.

#### 5.2.4 Doors Windows and Shutters

In this section, detailed drawings of the element types are given. There are three sets of drawings for each element type. First set includes the drawings of the original element type. These are not one to one drawings of your element but are idealised drawings of your element type. The height and width of your own element may differ. There may be slight changes in the profile dimensions. You should apply the dimensions of your own element to these drawings. You should apply the construction technique given in the drawings.

In the second set, there are proposals for some functional problems of your element. Solutions for air infiltration, movement of wings are given here. The third section includes the drawings of new elements. This section is there only if a new element is suggested. This section can be used only if the original element is missing. The element may be lost or be replaced by an inappropriate element giving harm to the building and not in harmony with the rest of the elements and the façade in terms of design and material.

PE01 – Partial Material Loss: An element of the element was lost, deteriorated or damaged partially for any reason.

IE01 – Investigate the reason for the material loss from the material section and make the necessary treatments. Check in the relevant drawings for ways to repair your element. You may have to remove the remaining part of the element or repair it using a synthetic resin. Remember that Synthetic resins have to be painted as they deteriorate when they get into contact with sun rays.

PE02 – Loss of Material: A part of the element was lost totally.

IE02 - Investigate the reason for the material loss from the material section and make the necessary treatments. Check in the relevant drawings for ways to repair your element.

PE03 – Loss of Wing: A wing of the element was lost or removed from its place.

IE03 – Rebuild the lost element according to the details of remaining wing, using the relevant drawings. Use the same type of timber as the original.

PE04 – Loss of the Element (Window, Shutter or Door): The element was lost or removed from its place.

IE04 – You will have to install a contemporary element, which is not outstanding, and which suits the characteristics of the building. The details of the element should be simple, without any ornamentation.

PE05 – Loss of strength in the hinges: The hinge may not be able to carry the wing anymore. This may be because of loosening of connection to the wall or the element wing, or because of the weakening of the metal due to rusting. The wing does not function properly and sags.

IE05 – See the relevant item in metals section.

#### 5.2.4.1 Windows

##### Type W01

This is the most common type seen in the area. Its profile is 25\*50 or 30\*50 mm. It has ten sub-groups. The sub-groups are determined according to the window divisions and how they are opened. Well-maintained ones have no problems. They are painted in white usually. The only complaint is that, because there is no strict speed regulation in Yeni Foça, the noise and dust produced by the vehicles penetrate in through the windows. This is a common problem in large streets and many have replaced their windows with aluminium ones. If the building is empty or the owners are not capable of or willing to maintain the building, the first stage of suffering is lack of paint. Because the timber used is hard timber, loss of paint has no immediate effect. Insect holes of one mm diameter were detected only in those buildings that were empty for 20-30 years. Other common problems are lack of glazing, loss of material. In many cases, the window sash or wings were removed and kept inside. (Figure 5.1.1 – 6.1.8)

**W01A1:** It consists of two portions, both consisting of two wings each. The main portion has three divisions of equal heights. The top portion has two wings that can be opened for ventilation. The buildings that it is seen are; Semerci Sokağı No: 6, Ziya Garip Sokağı No: 3 and No: 8, İzmir Caddesi No: 38, No: 47, No: 49, No: 30, No: 53, No: 54, No: 58, Fevzi Çakmak Caddesi No: 40, Karagöz Sokağı no: 15 (Figure 5.1.3) Check the drawings for further information. (Figure 5.2.1- 5.2.10)

**W01A2:** It consists of two portions, both consisting of two wings each. The main portion has two divisions of equal heights. The top portion has two wings that can be opened for ventilation. The buildings that it is seen are;

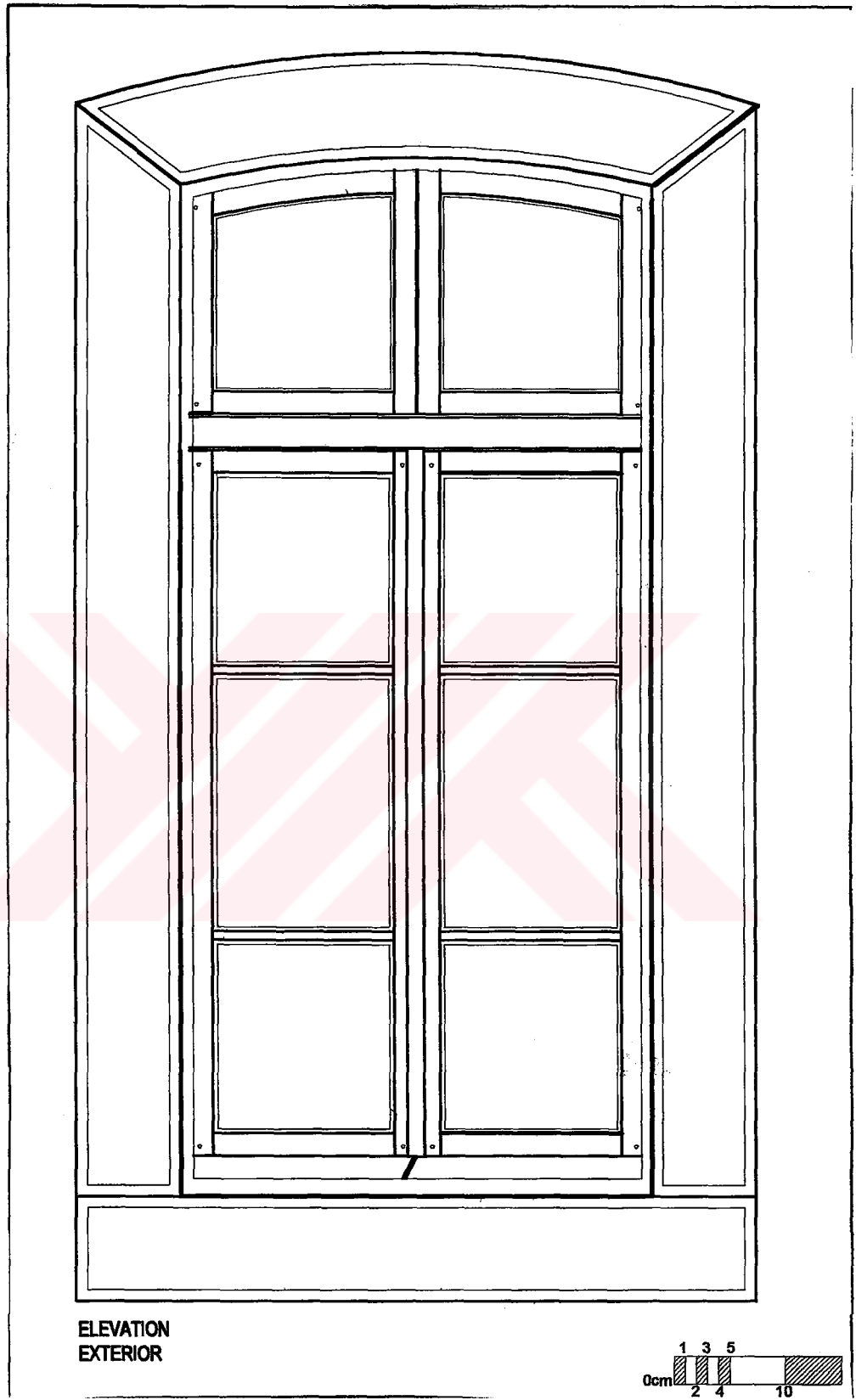


Figure 5.2.1 W01A –Exterior Elevation





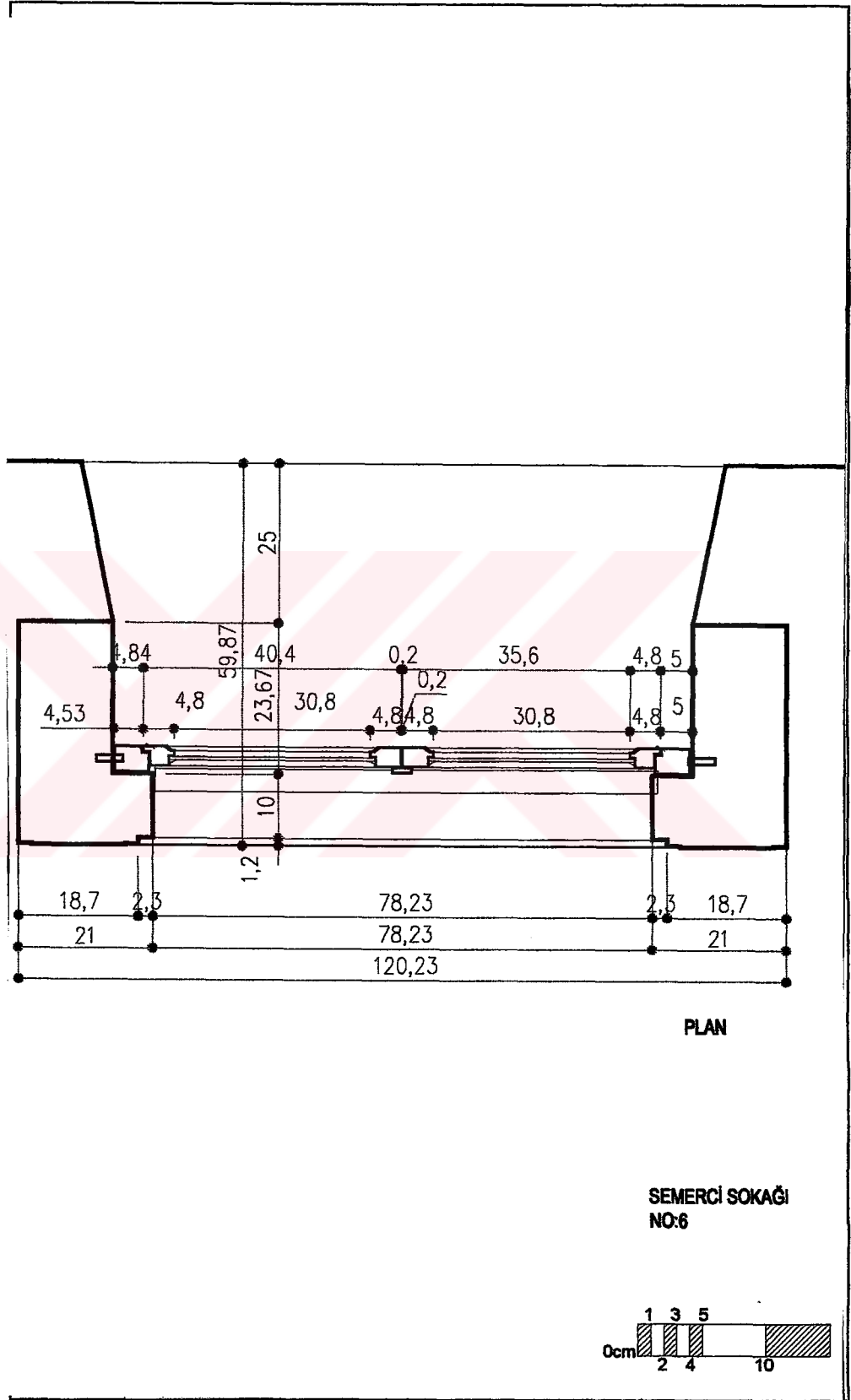


Figure 5.2.3 W01A- Plan

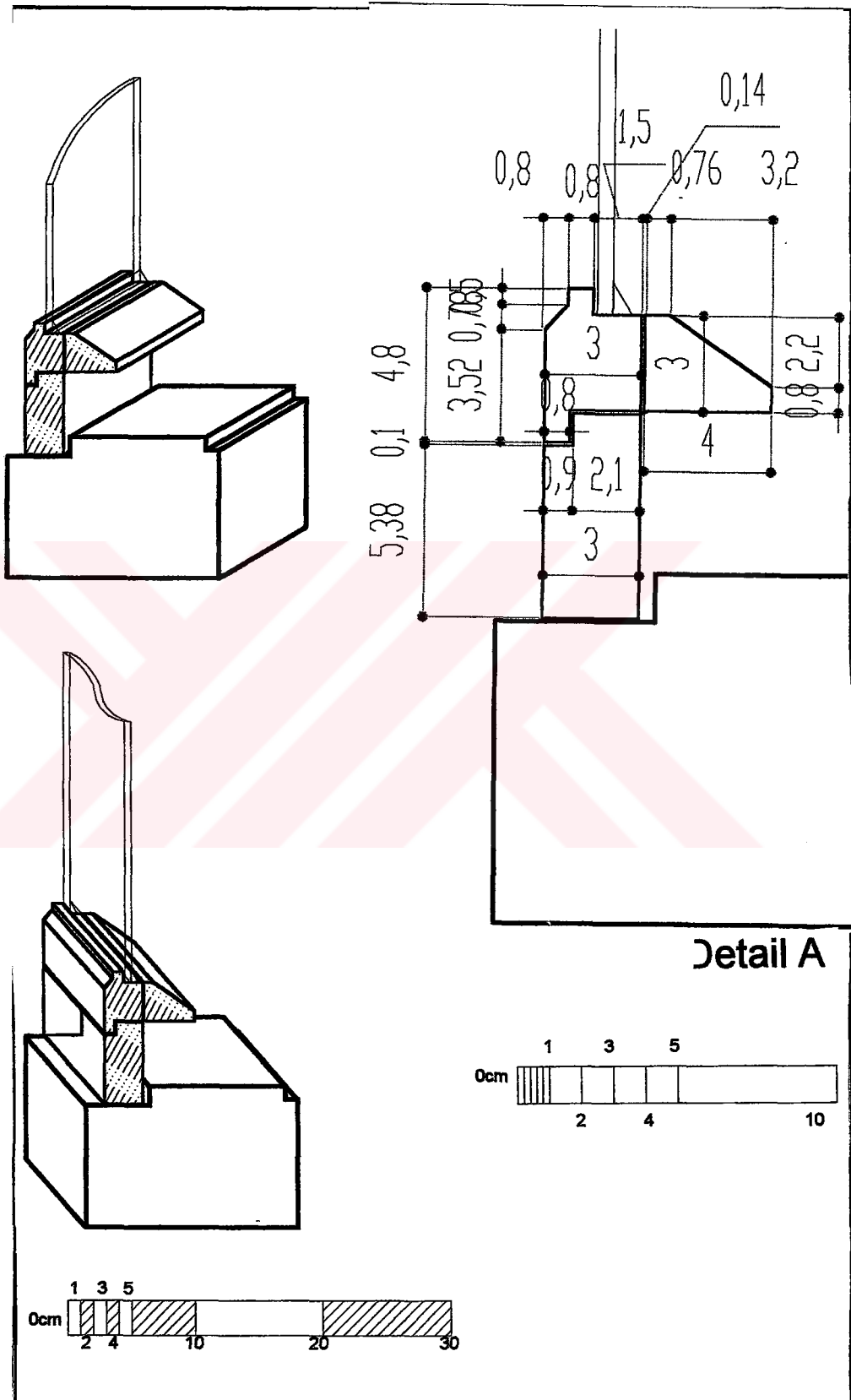


Figure 5.2.4 W01A Detail

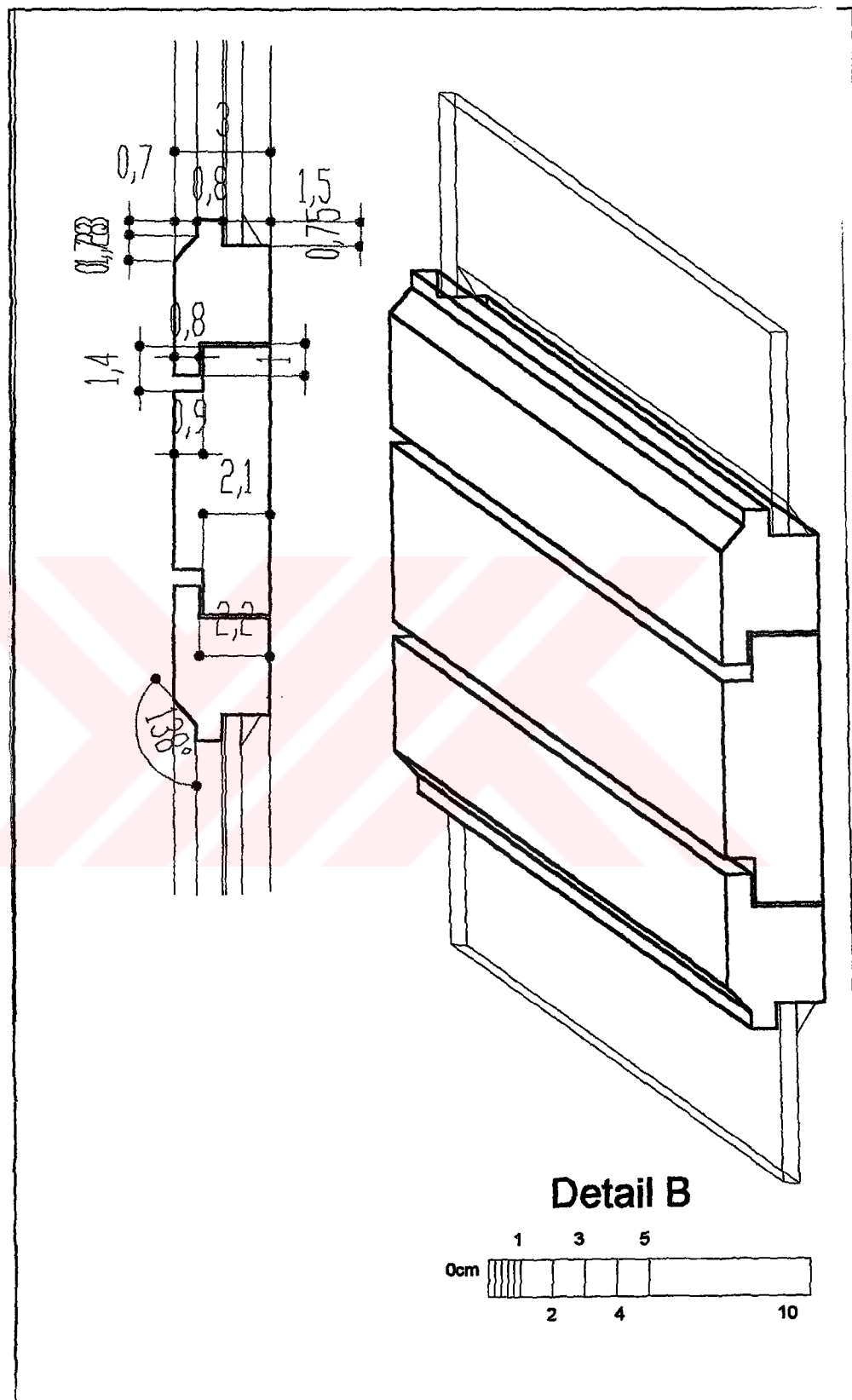


Figure 5.2.5 W01A Details



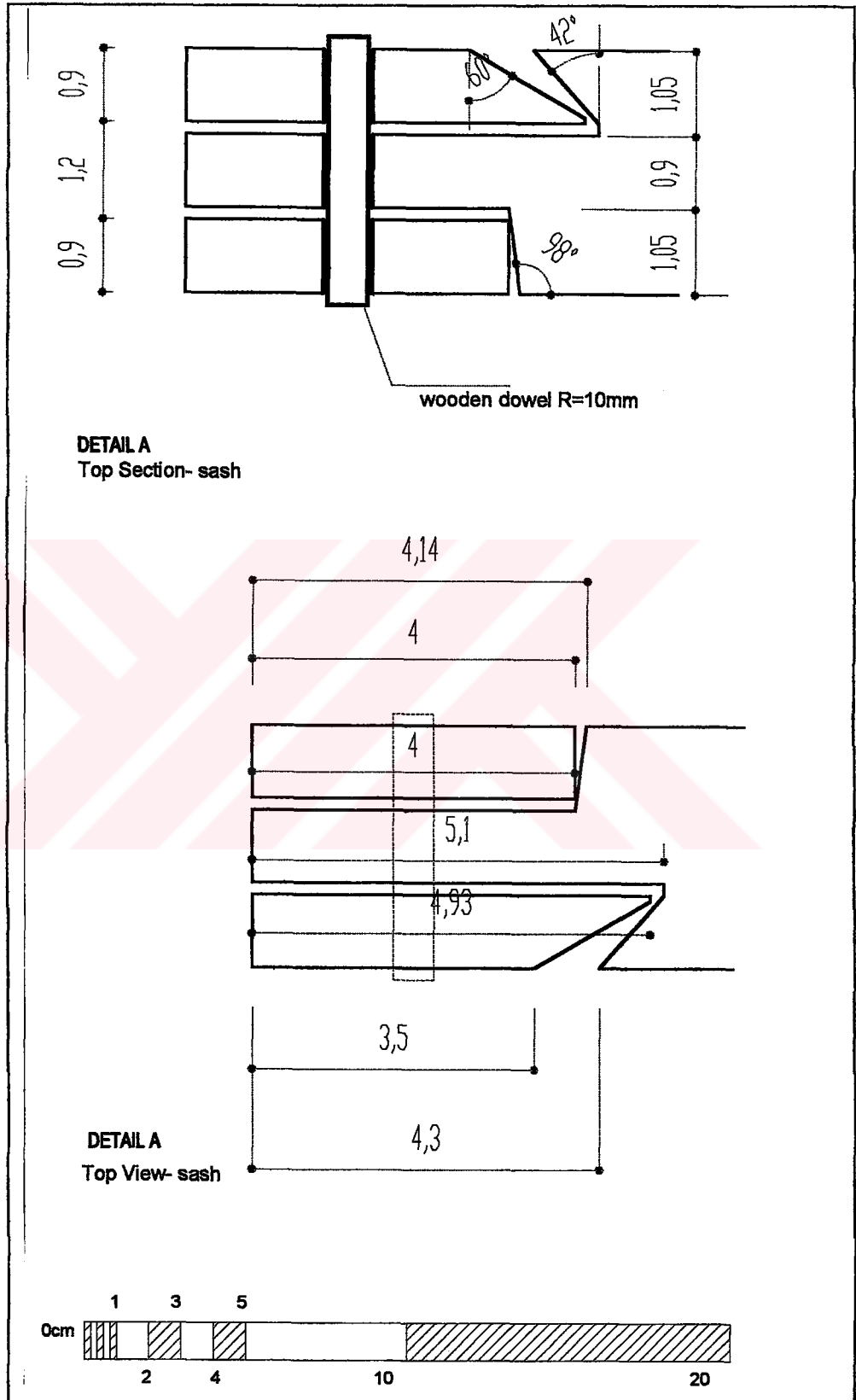


Figure 5.2.7 W01A Details

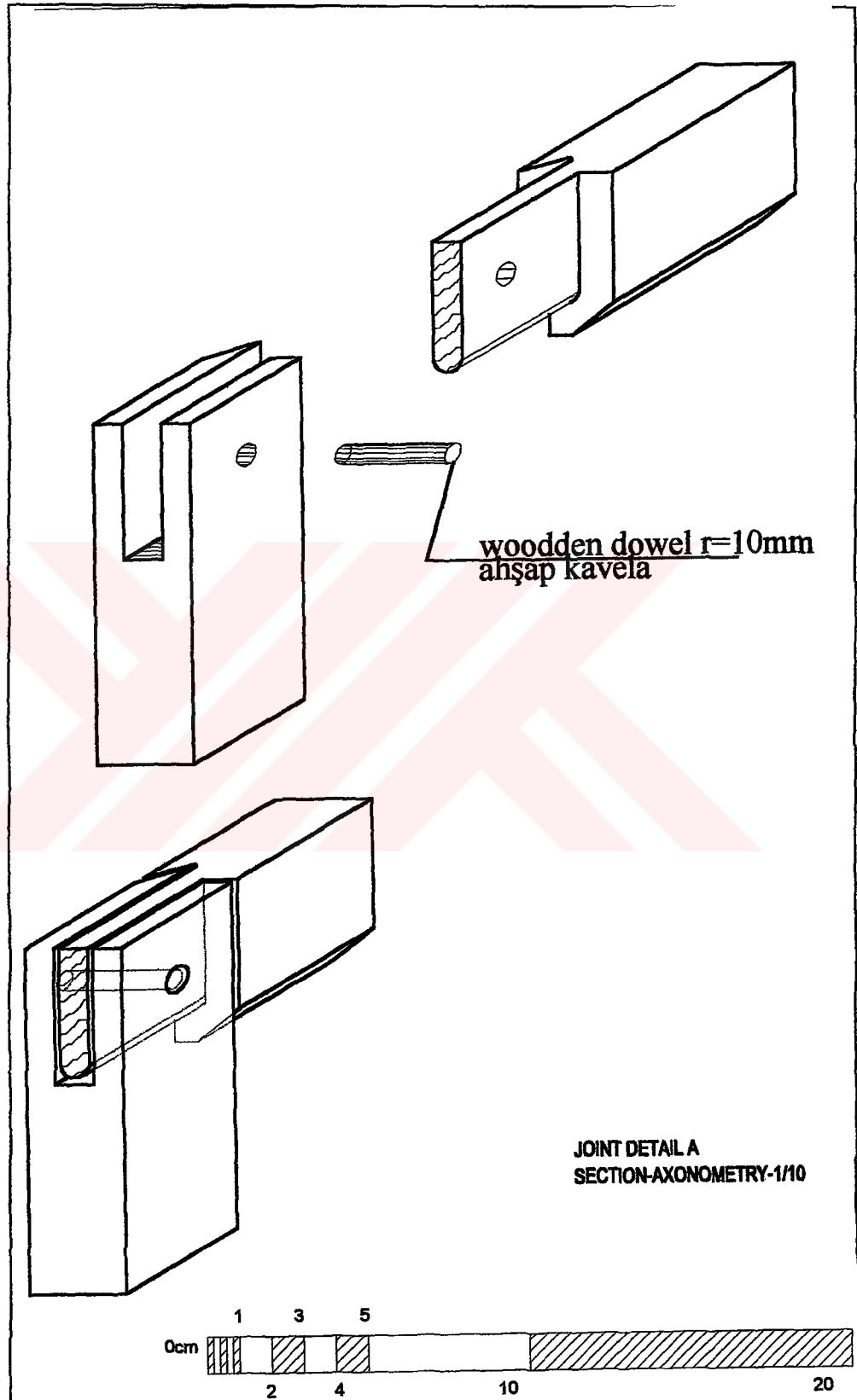


Figure 5.2.8 W01A Details

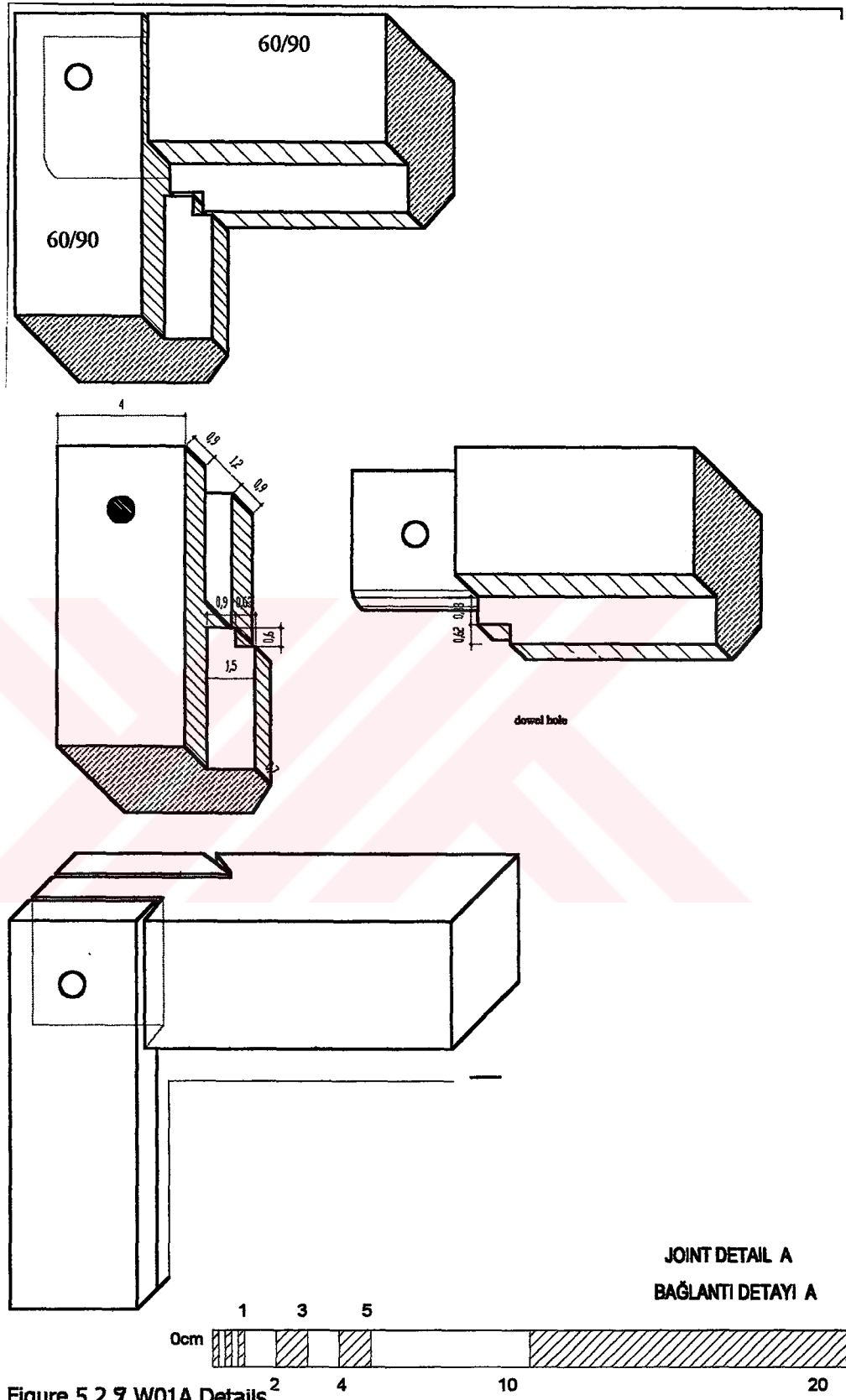


Figure 5.2.9 W01A Details

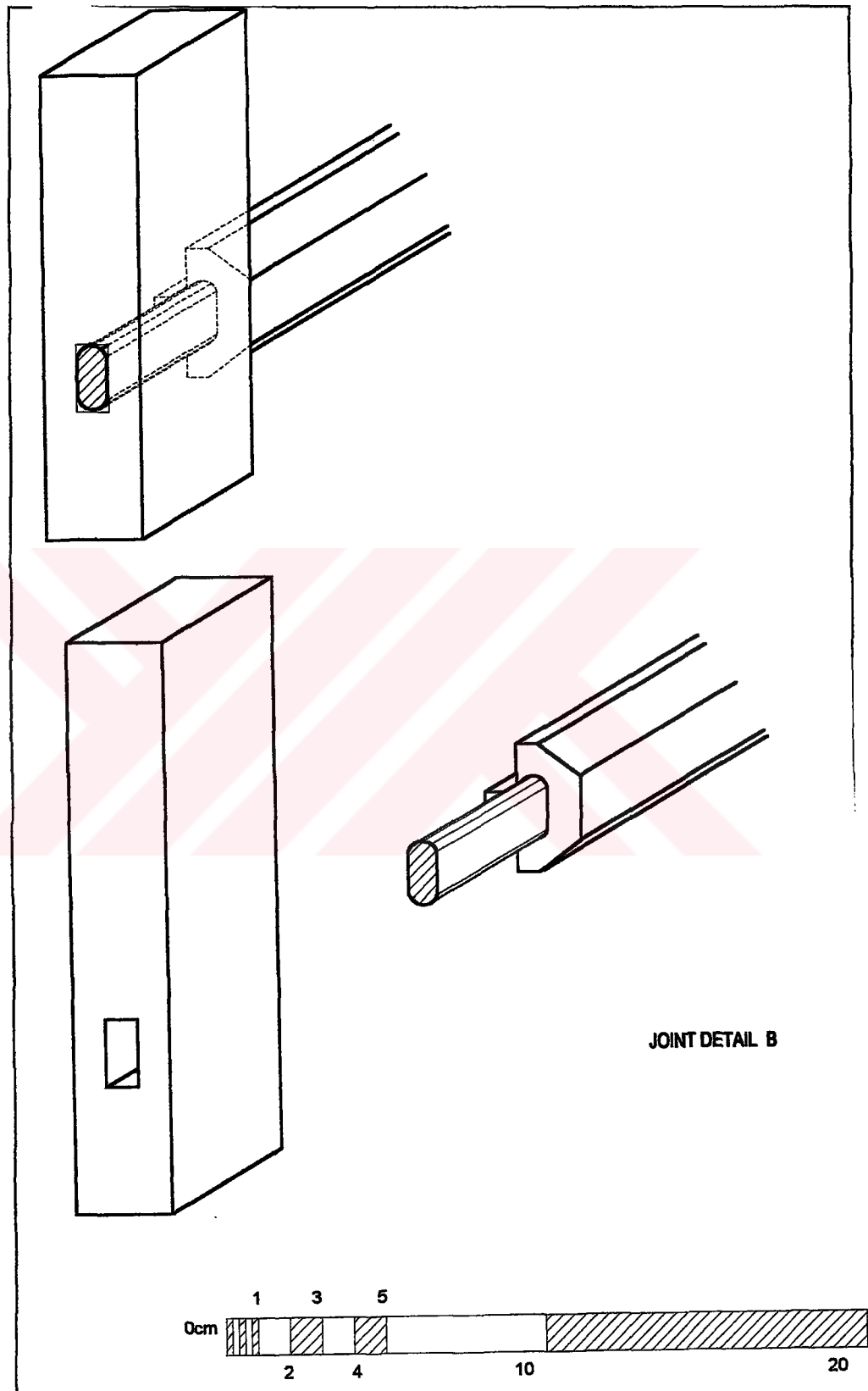


Figure 5.2.70W01A Details



İzmir Caddesi no:38, No:55, Fevzi Çakmak Sokağı no:29. Check the drawings of W01A1 for further information (Figure 5.2.1-5.2.10)

W01B1: It consists of one portion, and it consisting of two wings. It has three divisions of equal heights. The buildings that it is seen are; Hilmi Varol Sokağı no: 14, Ali Yeğen Sokağı no: 18, Kaptan Sokağı no:7, Hacı Mehmet Sokağı no:24, Bayraktar Sokağı no:25, Çınar Sokağı no:6, Orkun Sokağı no:11, Benel Sokağı No:11, Küçükkaya Sokağı no:1, Girne Sokağı no:2, No:3, Soylu Sokağı no 26, İzmir Caddesi no: 75, no:28, no:38. Check the drawings for further information (Figure 5.2.1-5.2.10)

W01B2: It consists of one portion, and it consisting of two wings. It has four divisions of equal heights. The buildings that it is seen are; Kaptan Sokağı no:7, İzmir Caddesi no: 15, No:91. (Figure 5.1.4) Check the drawings for further information (Figure 5.2.1-5.2.10)

W01C1: It consists of two portions. The main portion has three divisions of equal heights and two wings. The top portion is stable. It has no wings. The buildings that it is seen are; Benel Sokağı no: 27, no: 5, Mesut Sokağı no: 1, Pınar Sokağı no: 29, Karagöz Sokağı no: 15, Kordon Caddesi (Sahil) no: 21, Merkez Caddesi no: 11, Balcı Hıfız Sokağı no: 22, Kurtuluş Caddesi no: 33, Girne Caddesi no: 27, Soylu Sokağı no: 25, İzmir Caddesi no: 28, no: 38, no: 47, no: 50, no: 53, no: 57, no: 58, no: 60, no: 98. (Figure 5.1.5-5.1.6) Check the drawings for further information (Figure 5.2.8-5.2.19)

W01C2: It consists of two portions. The main portion has two divisions of equal heights and two wings. The top portion is stable. It has no wings. The buildings that it is seen are; İzmir Caddesi no: 22, no: 36, no: 38, no: 48, no: 55, no: 58, no: 73, no: 74, no: 92, no: 94, no: 97. Check the drawings for further information (Figure 5.2.8-5.2.19)

W01C3: It consists of two portions. The main portion has no divisions, but

only two wings. The top portion is stable. It has no wings. The buildings that it is seen are; Gezener Sokağı no:9, Hacı Mehmet Sokağı no:12, Günışığı Sokağı no:4, no:8, İzmir Caddesi no:43, no:45, Bayraktar Sokağı no:12, no:16, no:24. (Figure 5.1.8) Check the drawings for further information (Figure 5.2.8-5.2.19)

W01C4: It consists of one portion. The main portion has no divisions, but only two wings. The building that it is seen is; İzmir Caddesi no:49. . Check the drawings for further information (Figure 5.2.8-5.2.19)

W01D1: It consists of two portions. The main portion has two divisions of unequal heights and two wings. The top portion is stable. It has no wings and its top is flat. The buildings that it is seen are; Çakas Sokağı a, b. Check the drawings for further information (Figure 5.2.20-5.2.25)

W01D2: It consists of two portions. The main portion has two divisions of unequal heights and two wings. The top portion is stable. It has no wings and its top is curved in accordance with the lintel. İzmir Caddesi no: 38. Check the drawings for further information (Figure 5.2.20-5.2.25)

## Type W02

This is a relatively new type seen in the area. It is a vertical sash window type. Its profile is around 35\*50 mm. It has two sub-groups. The sub-groups are determined according to the window divisions and how they are opened. Well-maintained ones have no problems. They are painted in various colours. There is no data on the user complaints. If the building is empty or the owners are not capable of or willing to maintain the building, the first stage of suffering is lack of paint. Insect holes of one mm diameter were detected only in those buildings that were empty for 20-30 years. Other common problems are lack of glazing, loss of material. In many cases, the window sash or wings were removed and kept inside. Check the drawings for further information (Figure 5.2.20-5.2.26)

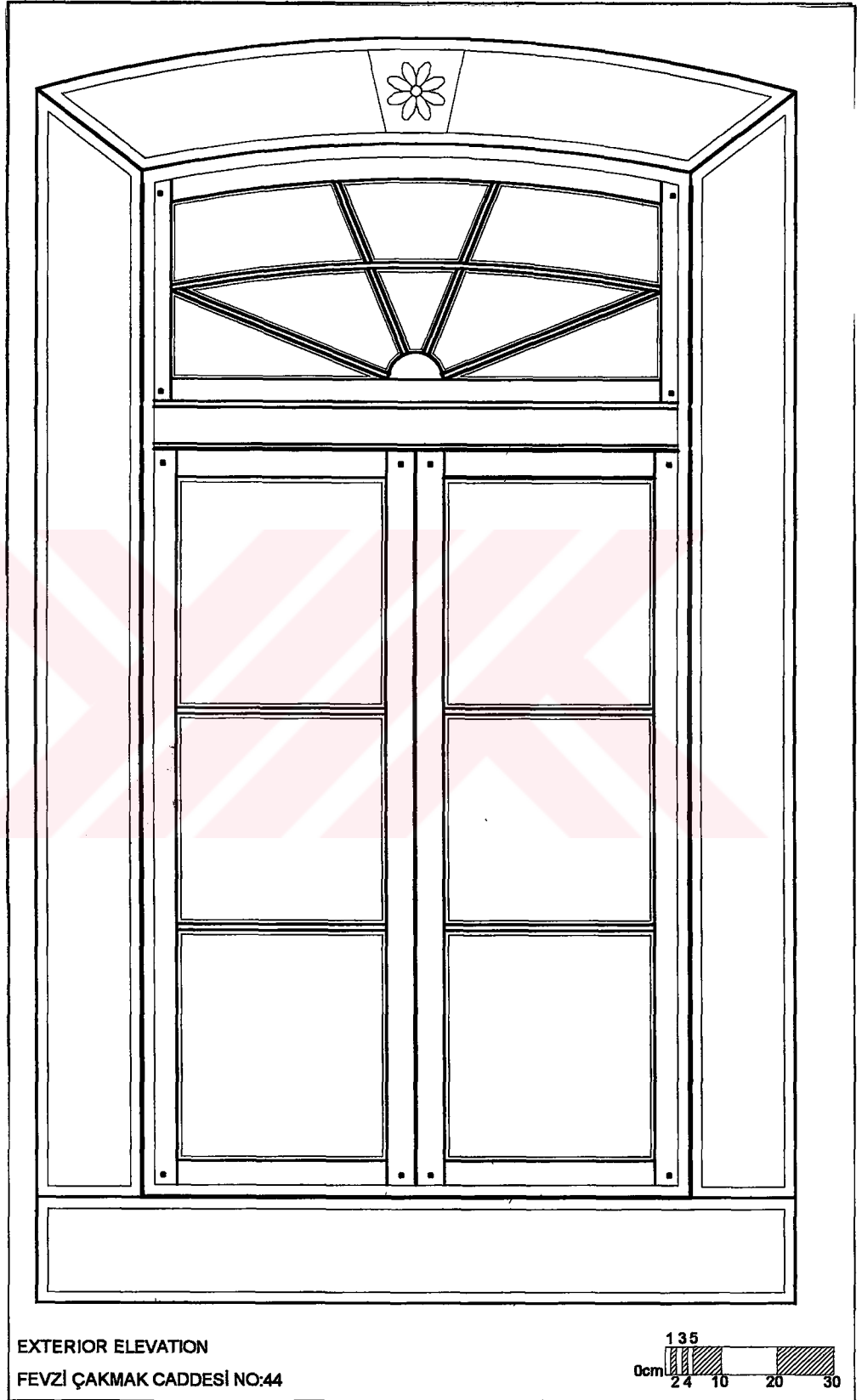
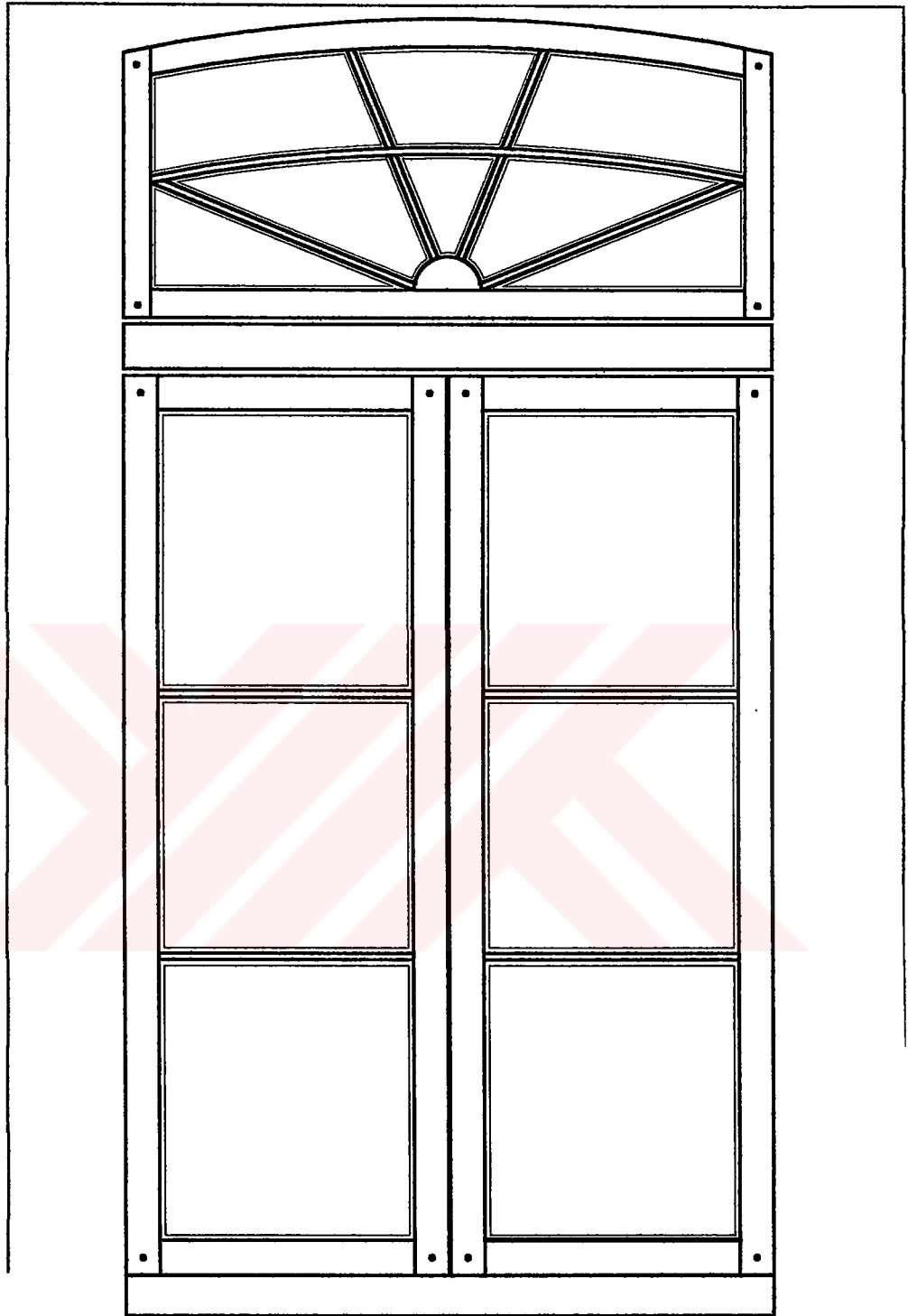


Figure 5.2.8 W01C- Fevzi Çakmak Cad. No:44- Exterior Elevation



ELEVATION INTERIOR  
FEVZİ ÇAKMAK CADDESİ NO:44

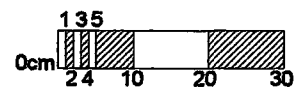


Figure 5.2.9 W01C Interior Elevation

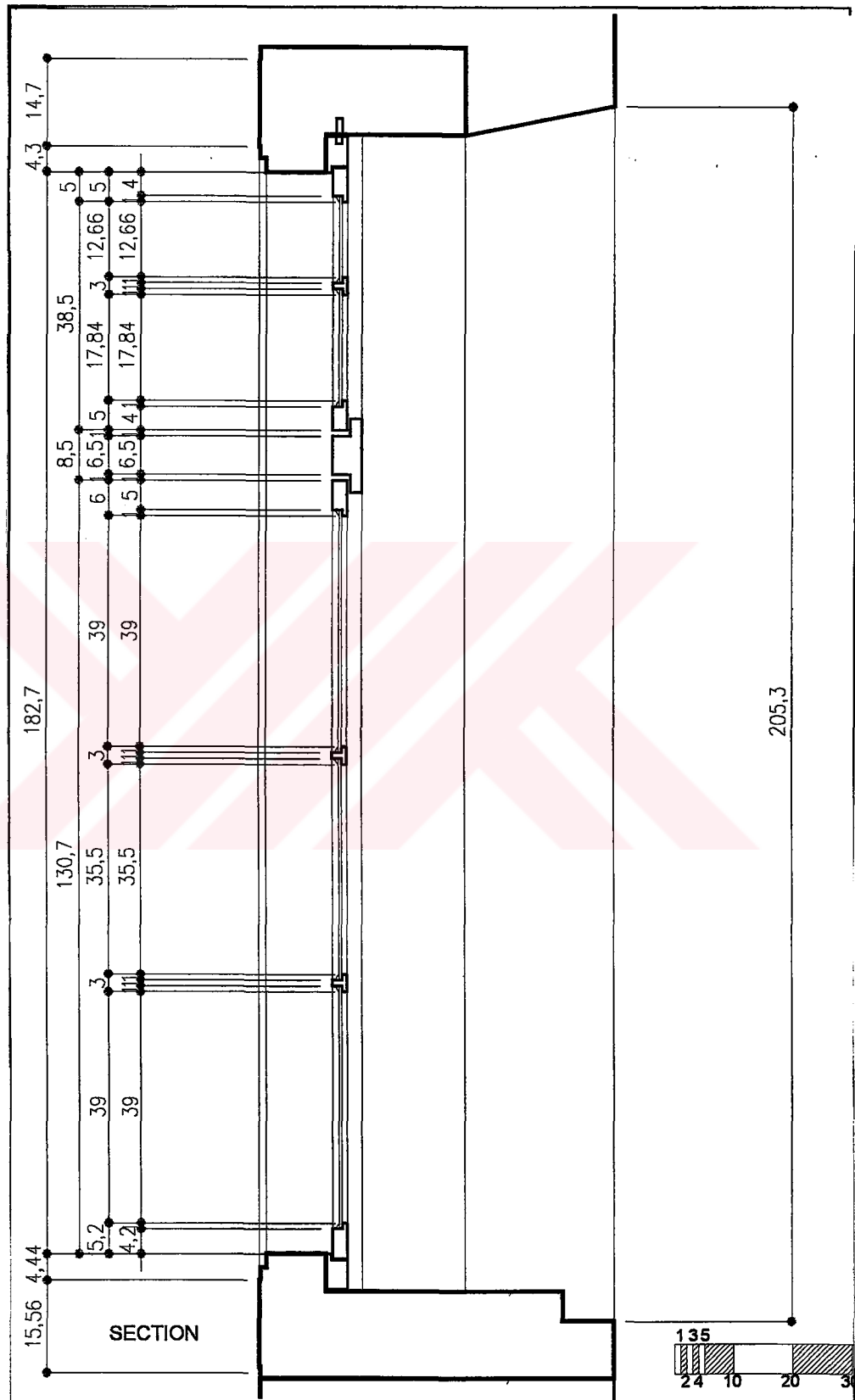


Figure 5.2.10 W01C Section

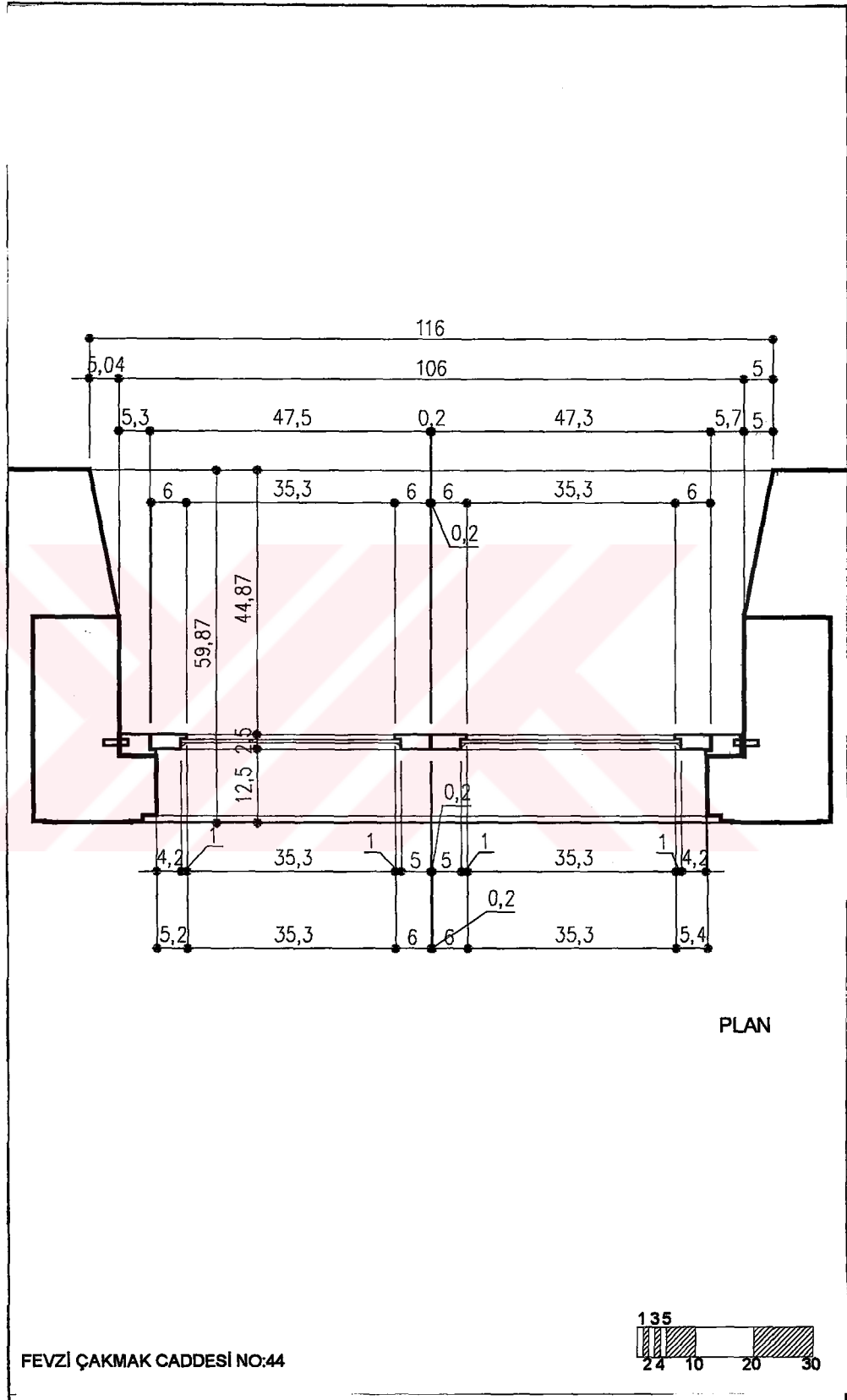


Figure 5.2.11 W01C Plan

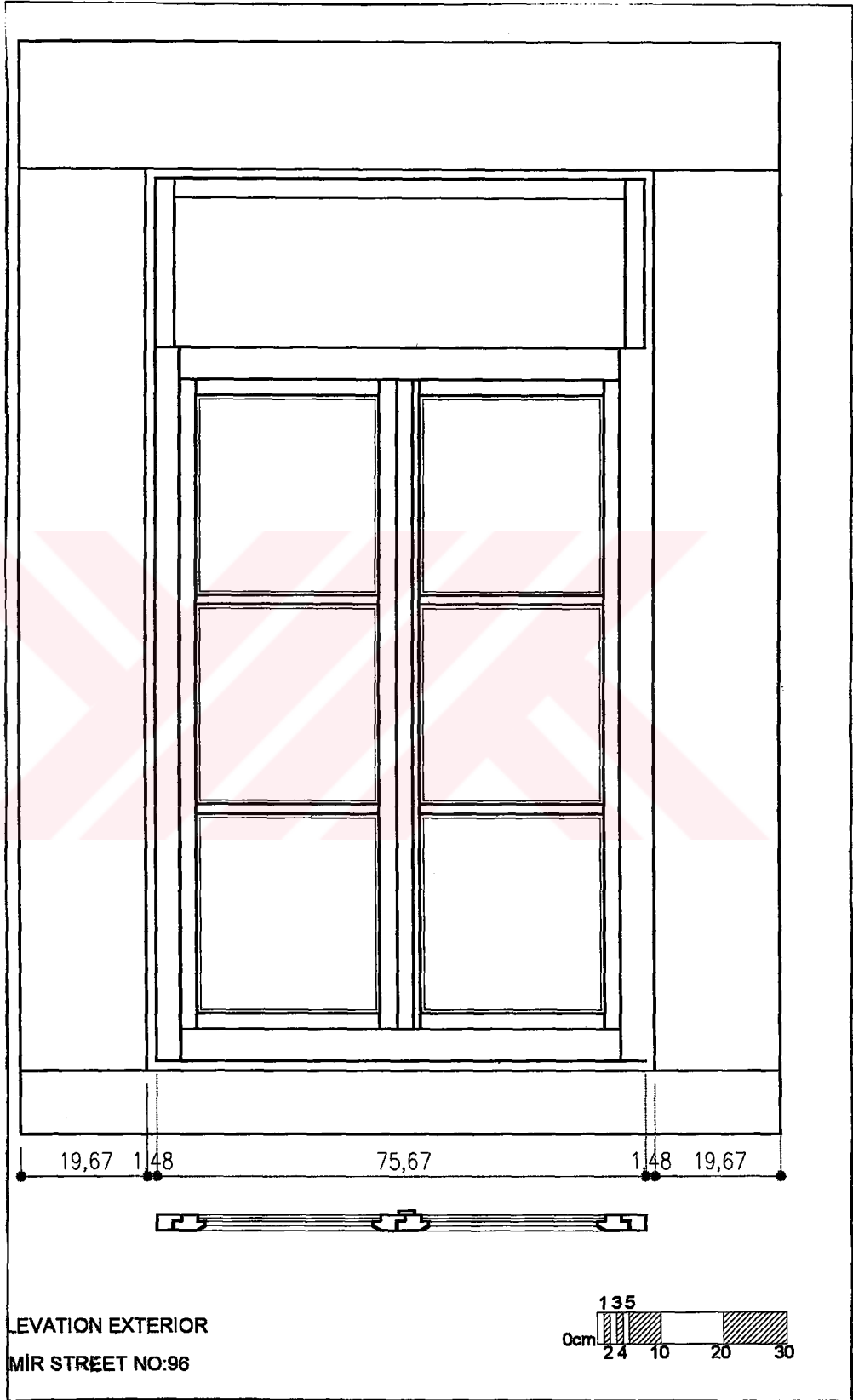


Figure 5.2.12 W01C- İzmir Caddesi No:96- Exterior Elevation

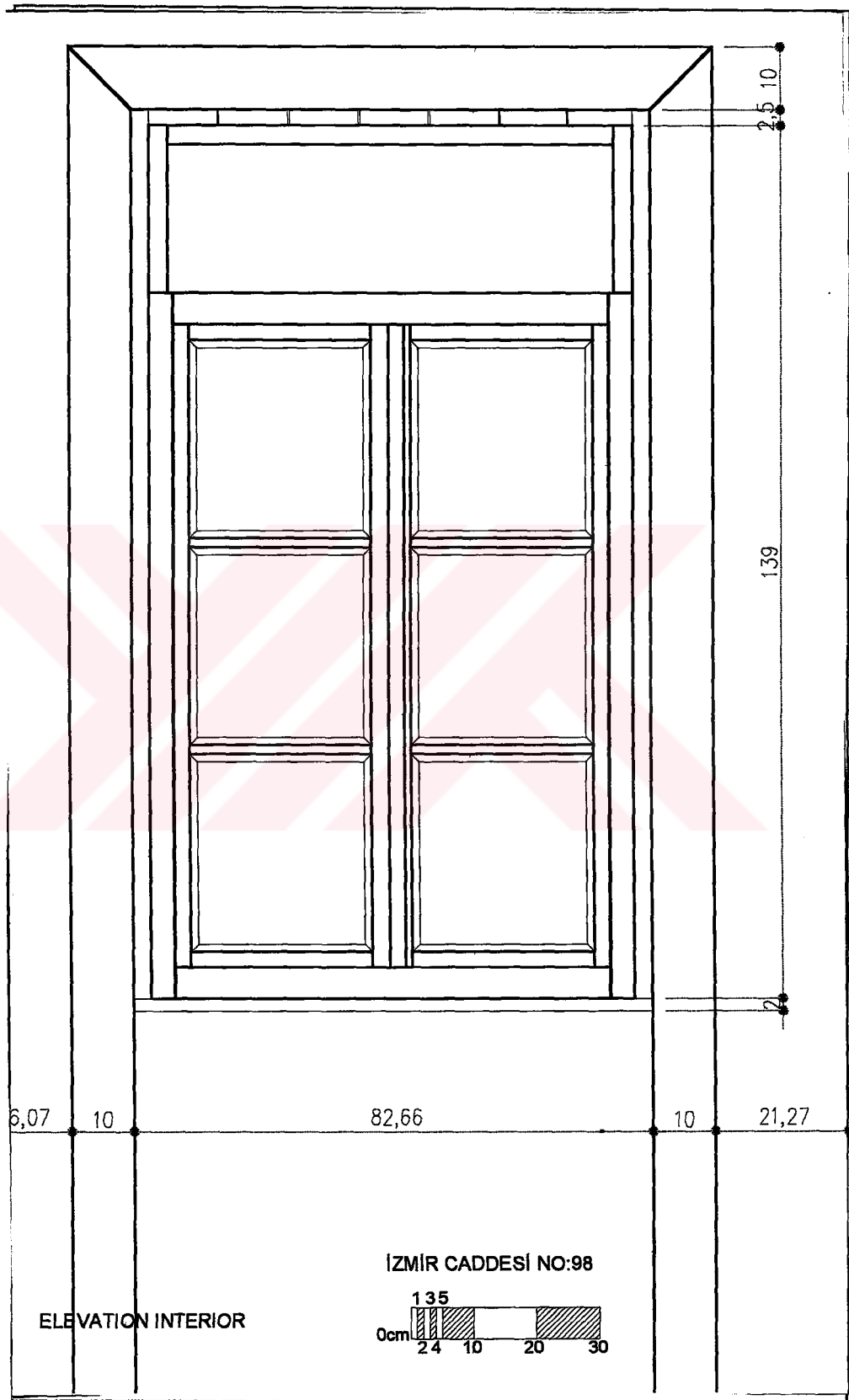
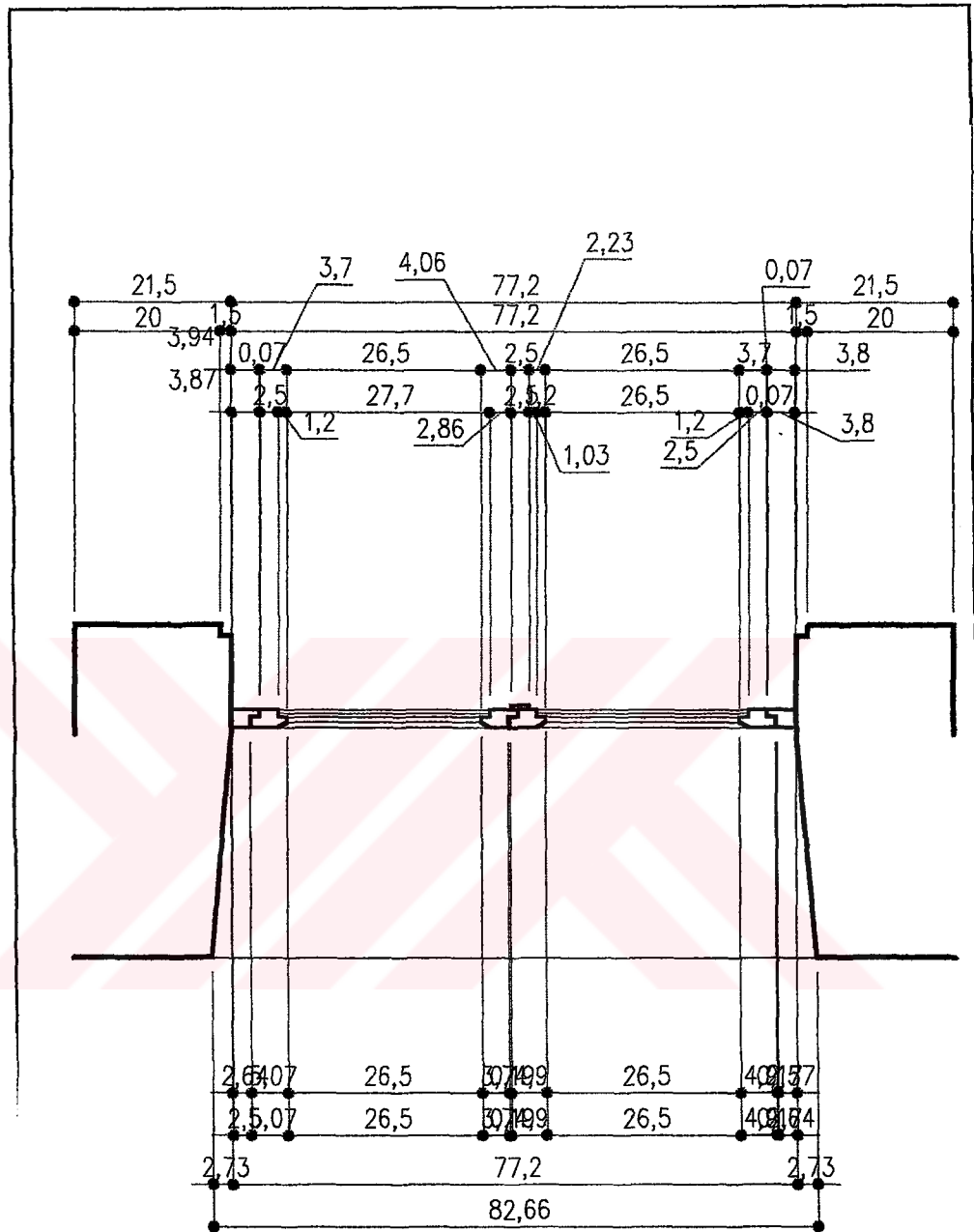


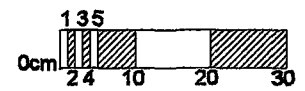
Figure 5.2.13 W01C Interior Elevation







İZMİR CADDESİ NO:96



PLAN

Figure 5.2.15 W01C Plan

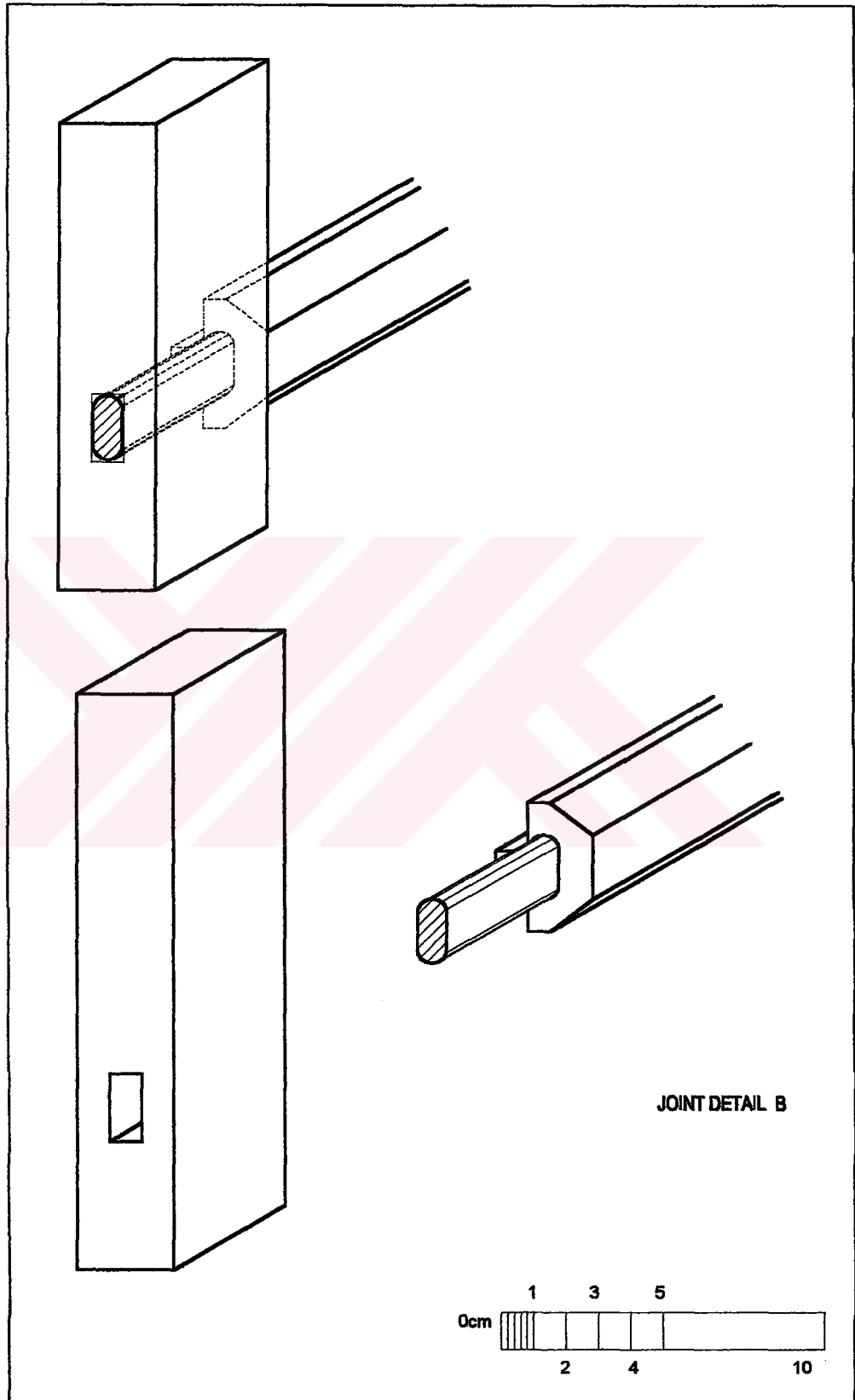


Figure 5.2.16 W01C Details

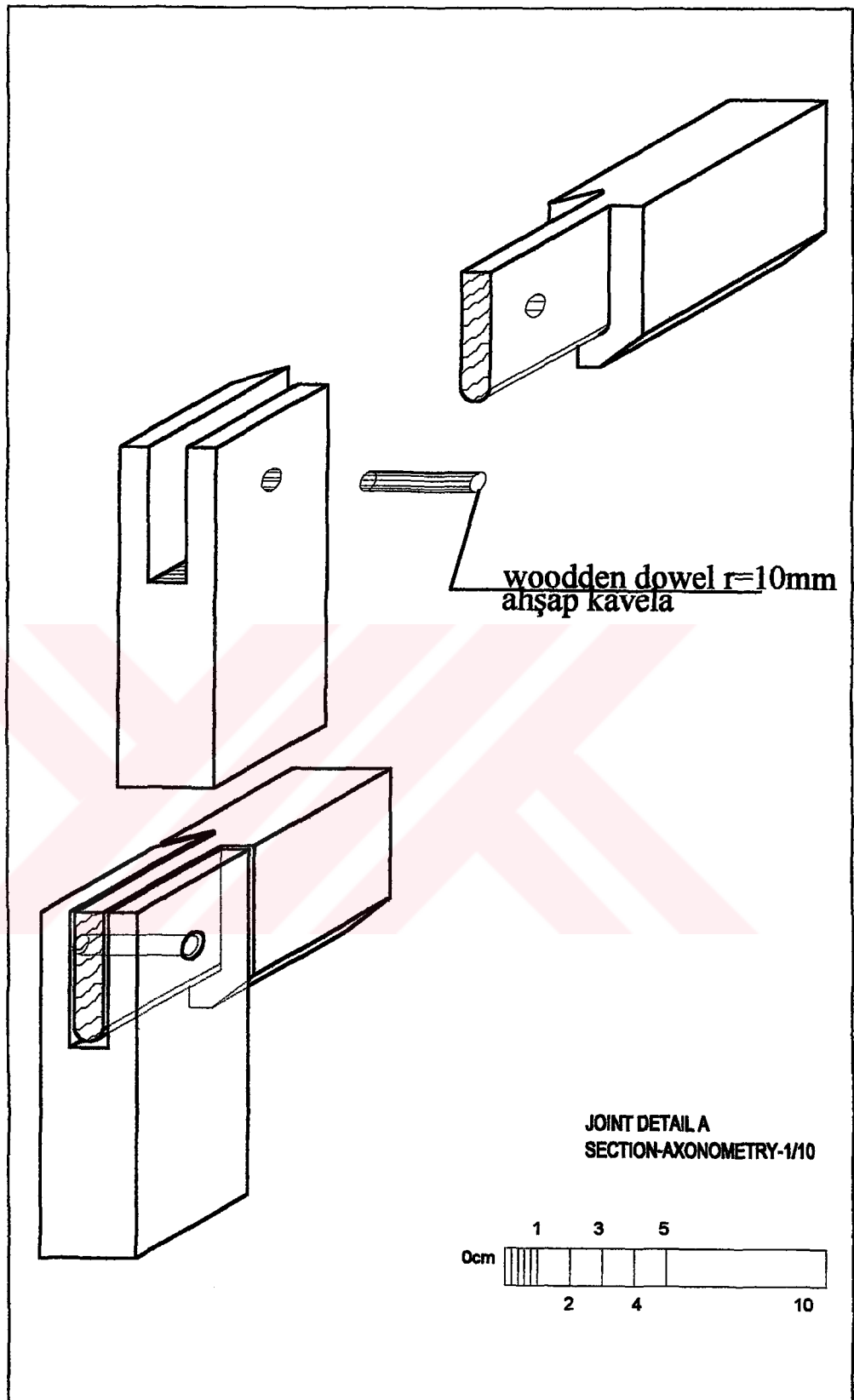


Figure 5.2.17 W01C Details

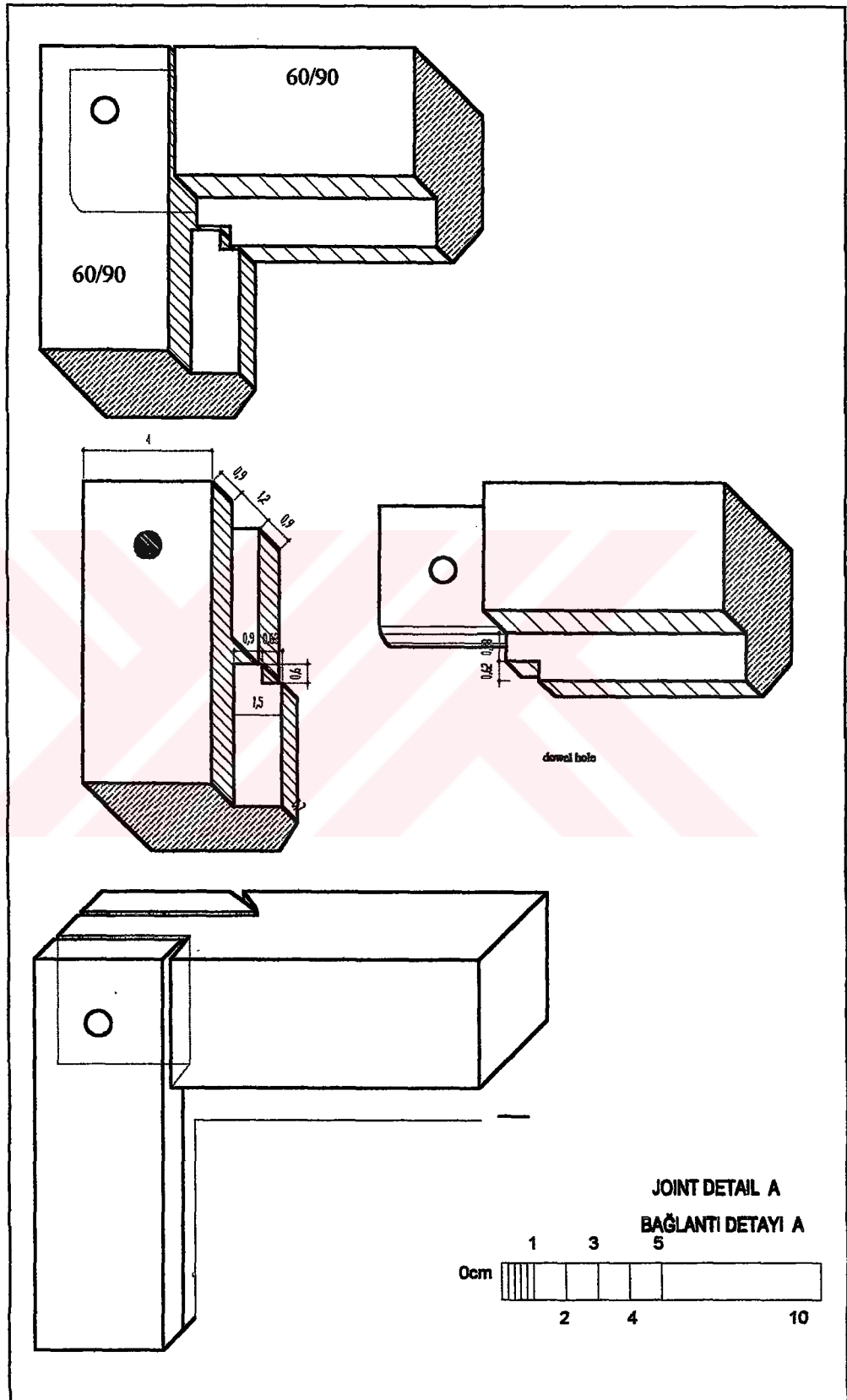


Figure 5.2.18 W01C Details

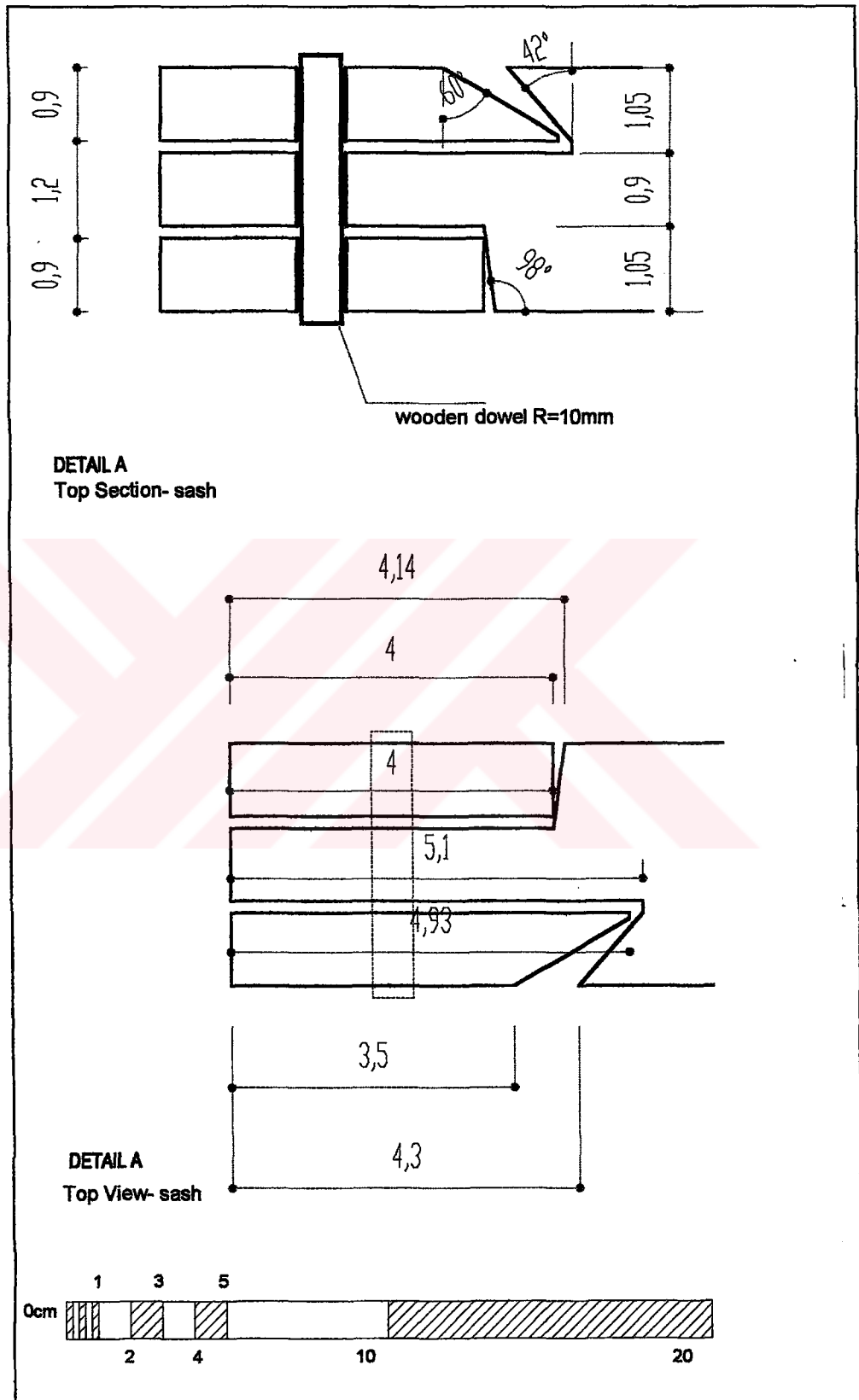


Figure 5.2.19 W01C Details



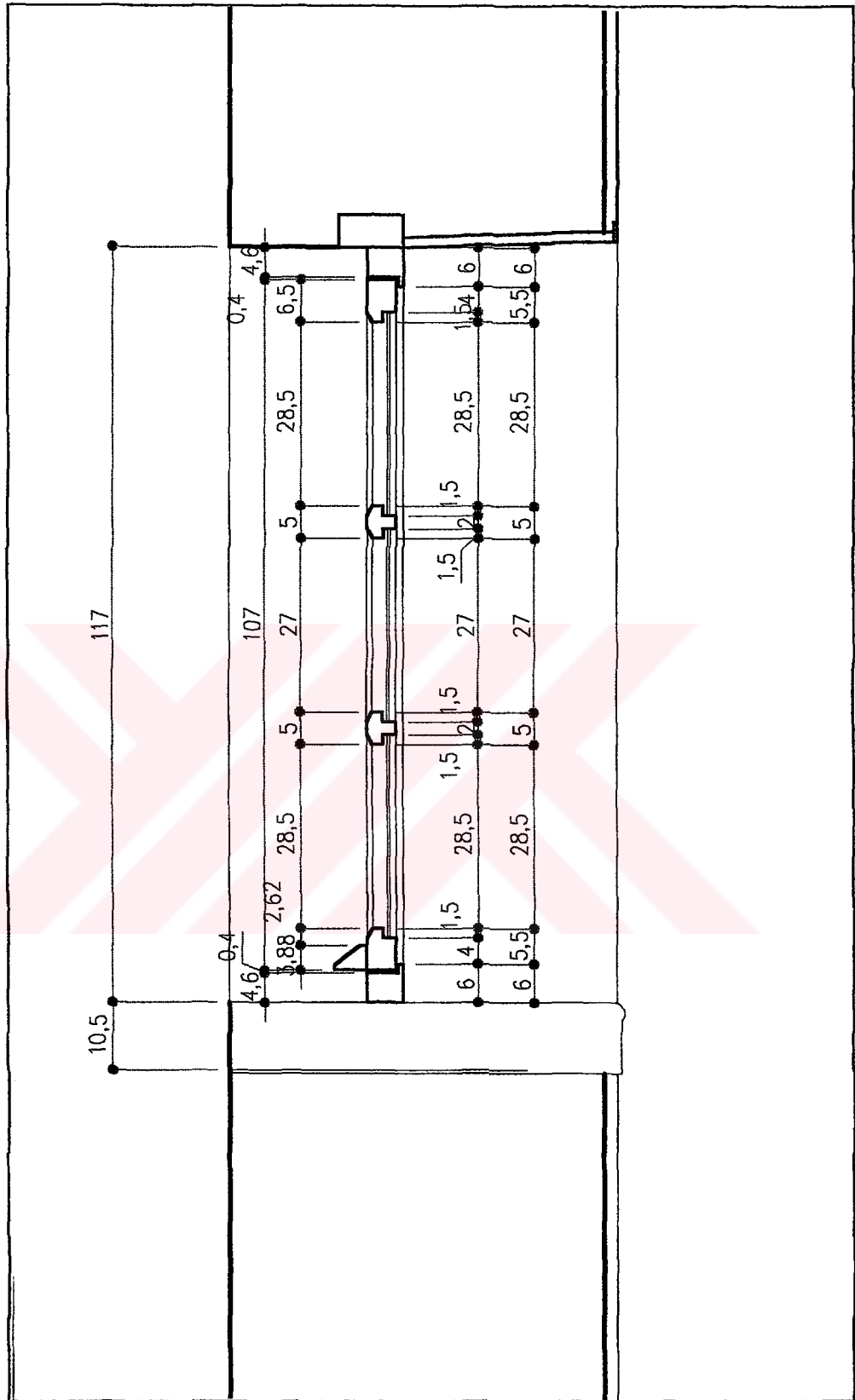


Figure 5.2.21 W02A Section



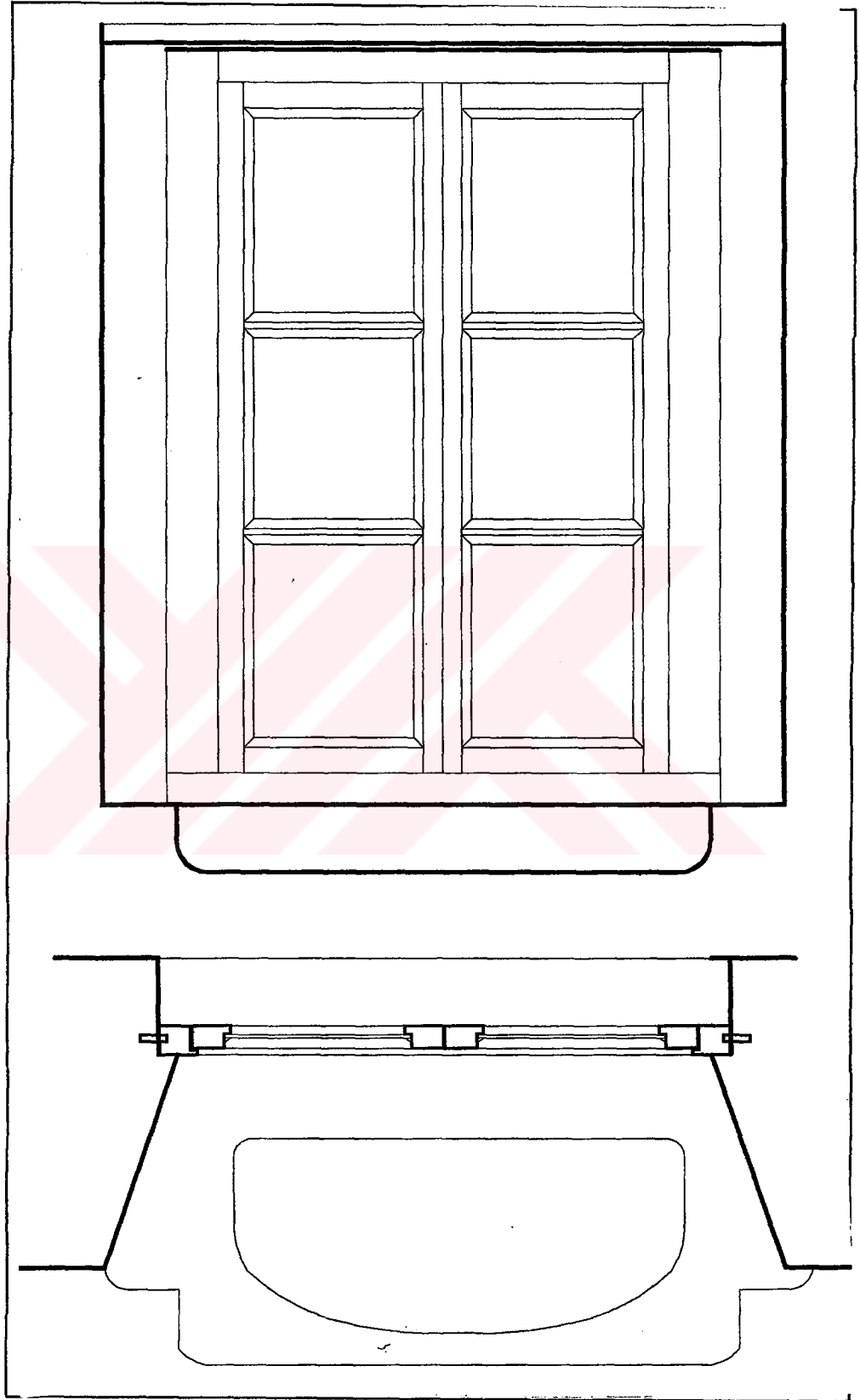


Figure 5.2.22 W02A-İzmir Caddesi No:96 Elevation and Plan of Kitchen Window

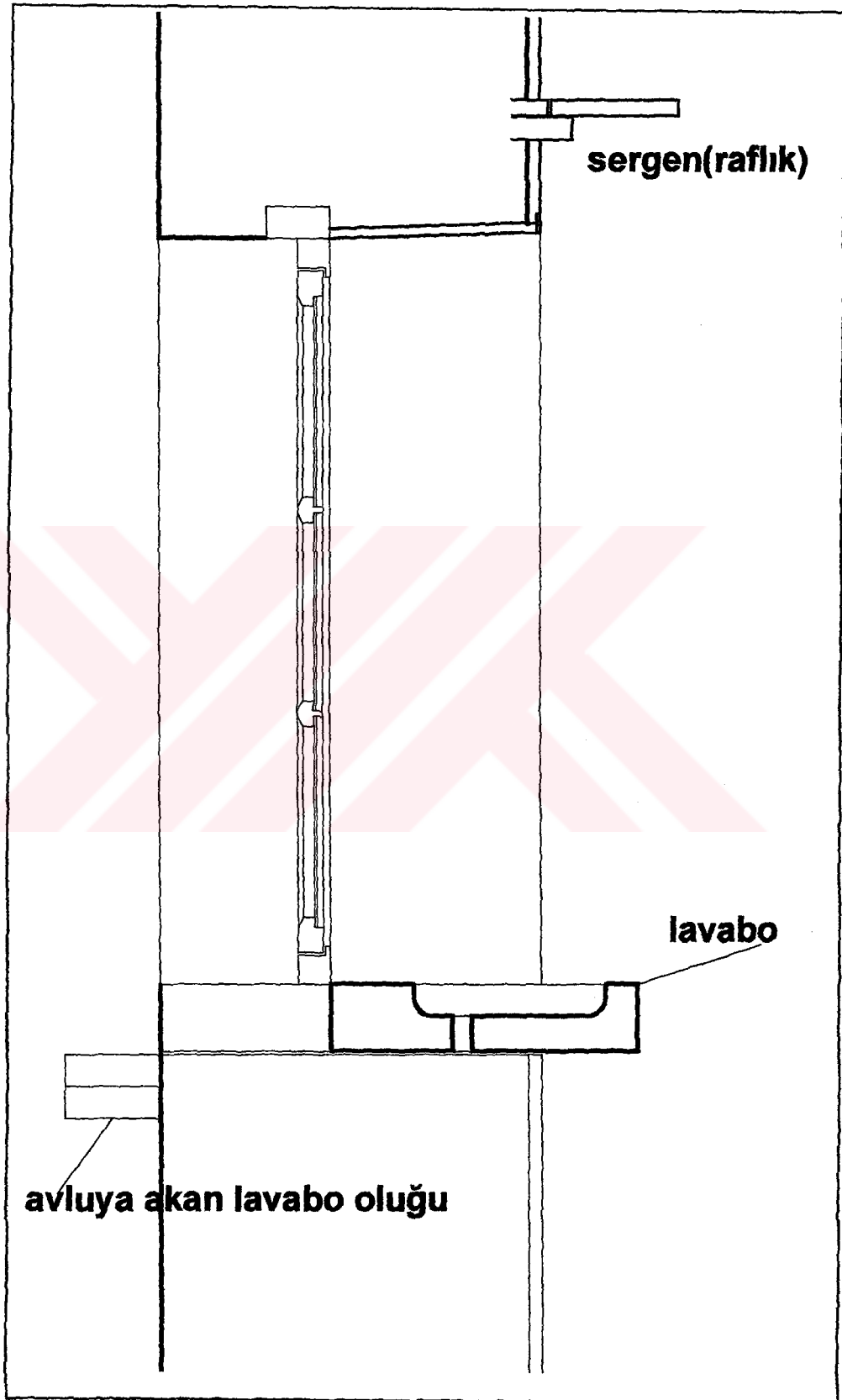


Figure 5.2.23 W02A Section of Kitchen Window

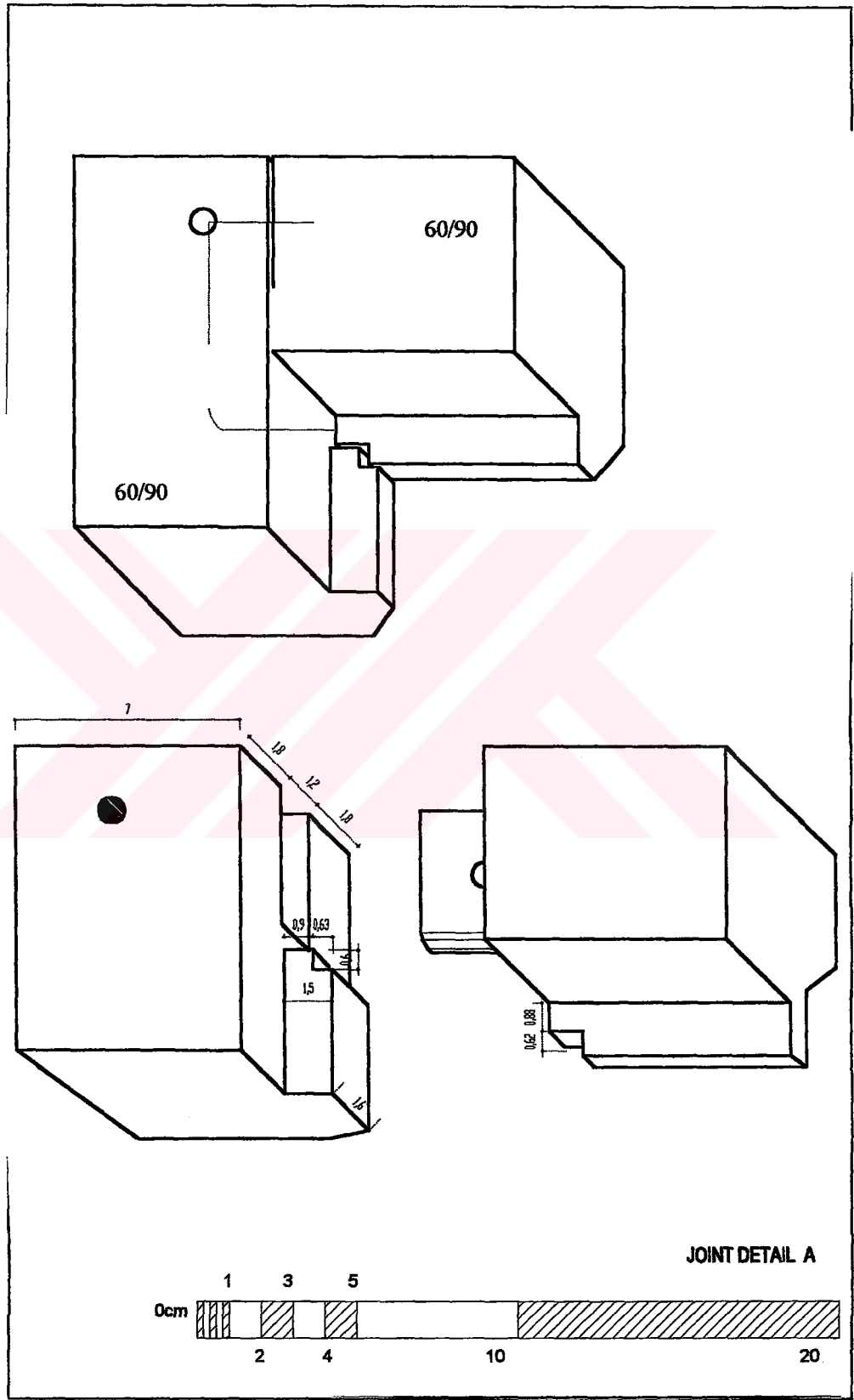


Figure 5.2.24 W02A Details

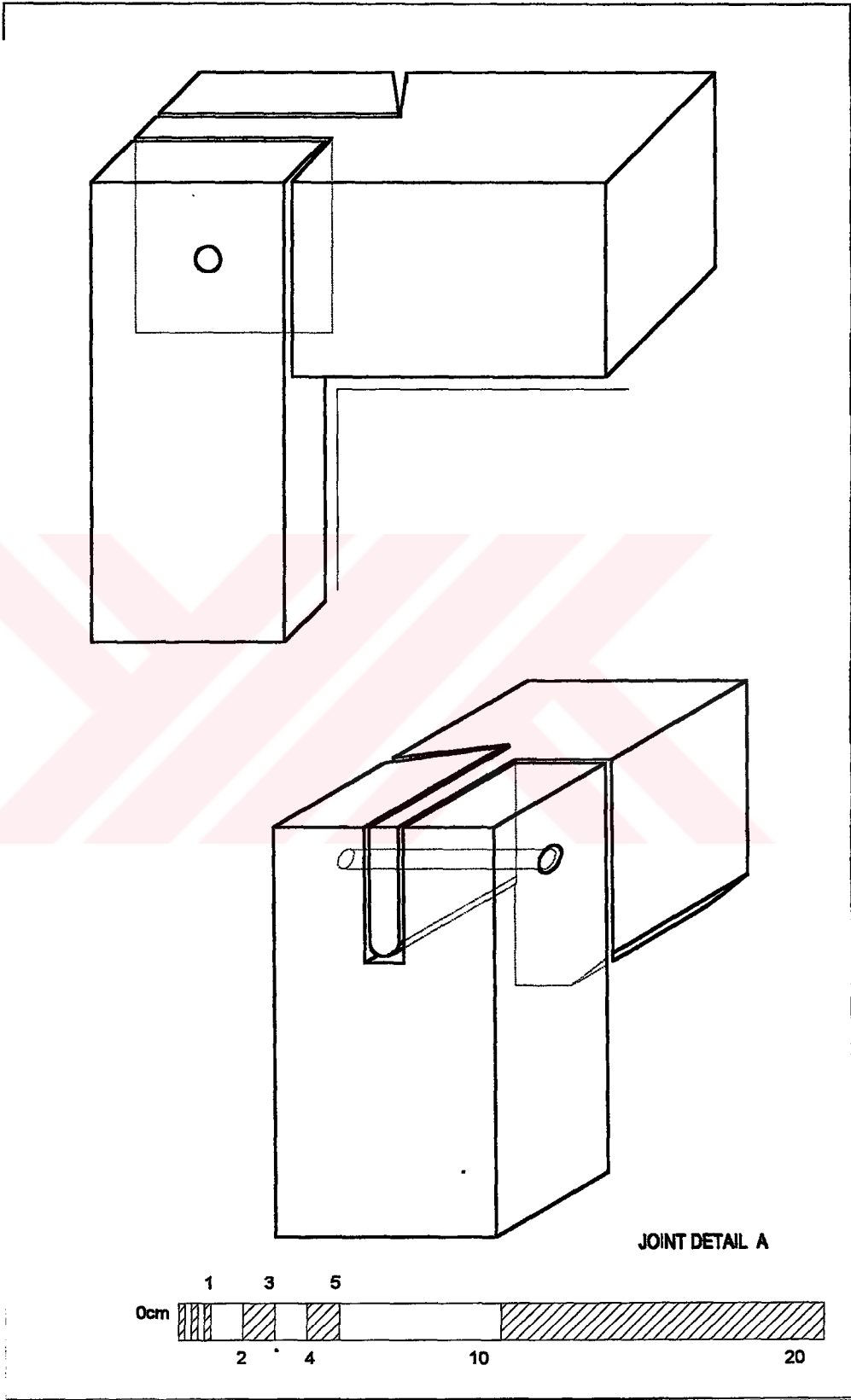


Figure 5.2.25 W02A Details

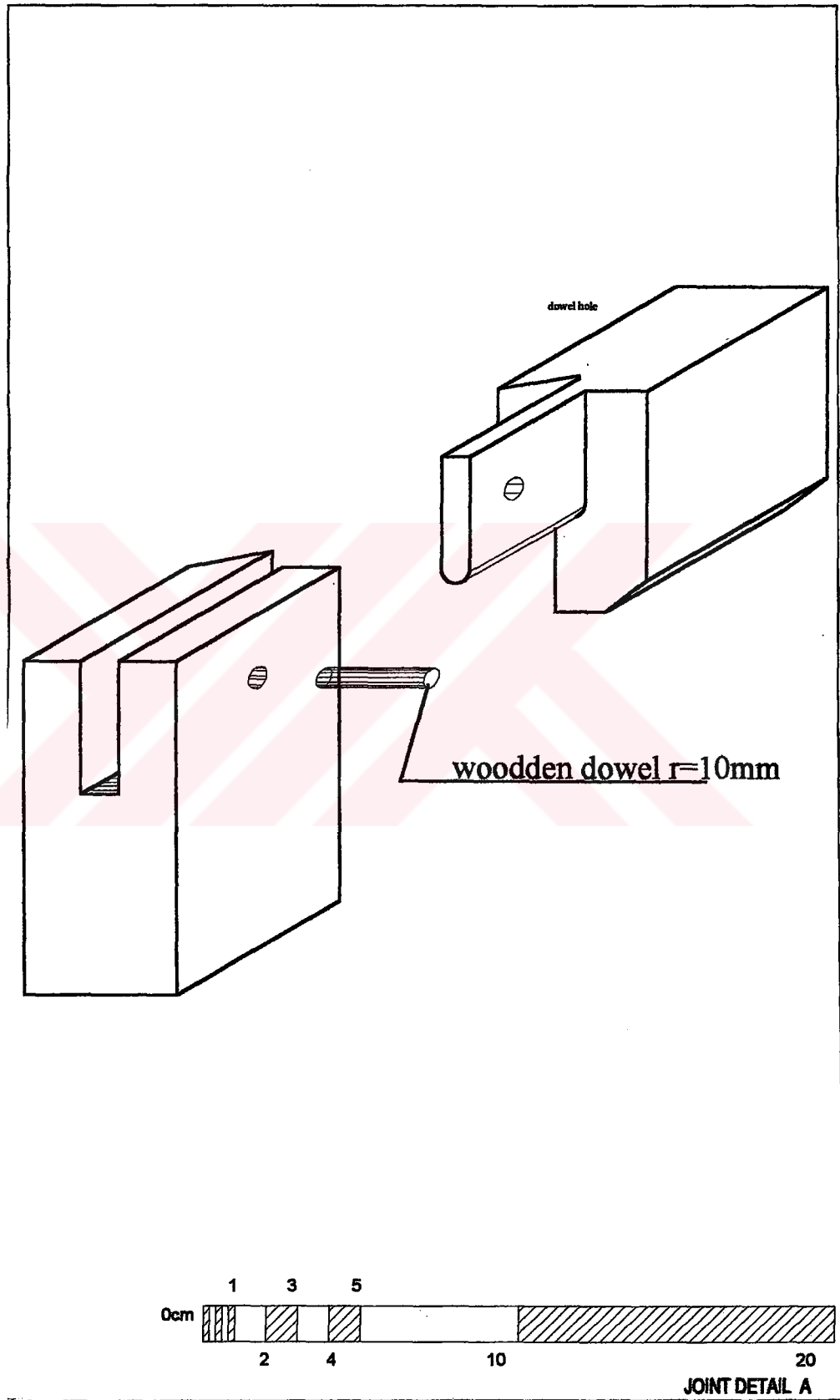


Figure 5.2.26 W02A Details

W02A: It consists of one portion. The main portion has three divisions and two wings. The buildings that it is seen are; Kaşıkçı Sokağı no: 7, Girne Sokağı no: 46 (with kafes), Günışığı Sokağı no: 6, Küçükkaya Sokağı no: 9. (Figure 5.1.9)

W02B: It consists of two portions. The main portion has two divisions of unequal heights and two wings. The top portion is stable. It has no wings. The building that it is seen is; İzmir Caddesi no:49

### Type W03

This may be the older type seen in the area. Its profile is around 25\*40 mm. It has two sub-groups. The sub-groups are determined according to the window divisions and how they are opened. Well-maintained ones have no problems. They are painted in various colours. There is no data on the user complaints. If the building is empty or the owners are not capable of or willing to maintain the building, the first stage of suffering is lack of paint. Because the timber used is hardtimber, loss of paint has no immediate effect. Other common problems are lack of glazing, loss of material. (Figure 5.1.10)

W03A: It is a vertical sash window. Its sash has no divisions. The buildings that it is seen are; Sahil Caddesi no: 63, Atay Sokağı no:2. Check the drawings for further information) (Figure 5.2.27-5.2.48)

W03B: It is a vertical sash window. Its sash is divided vertically and horizontally into four equal parts. The buildings that it is seen are; Sahil Caddesi no: 77, no:91, Atay Sokağı no:1, Hacı Mehmet Sokağı no:1, Merkez Caddesi no:9, İzmir Caddesi no:47, no:96, no:100, no:102. Check the drawings for further information) (Figure 5.2.49-5.2.66)

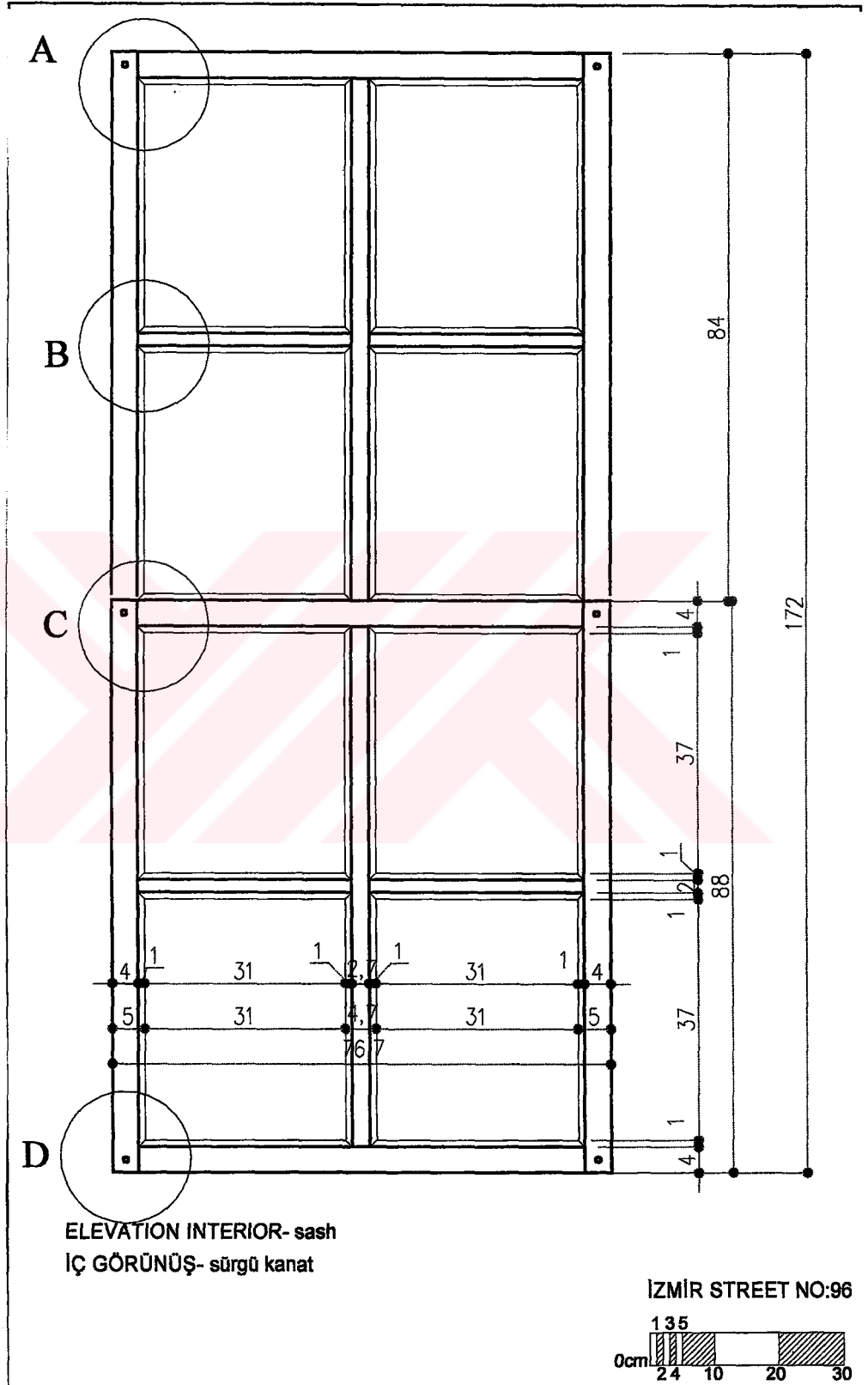


Figure 5.2.27 W03B İzmir Caddesi No:96- Interior Elevation

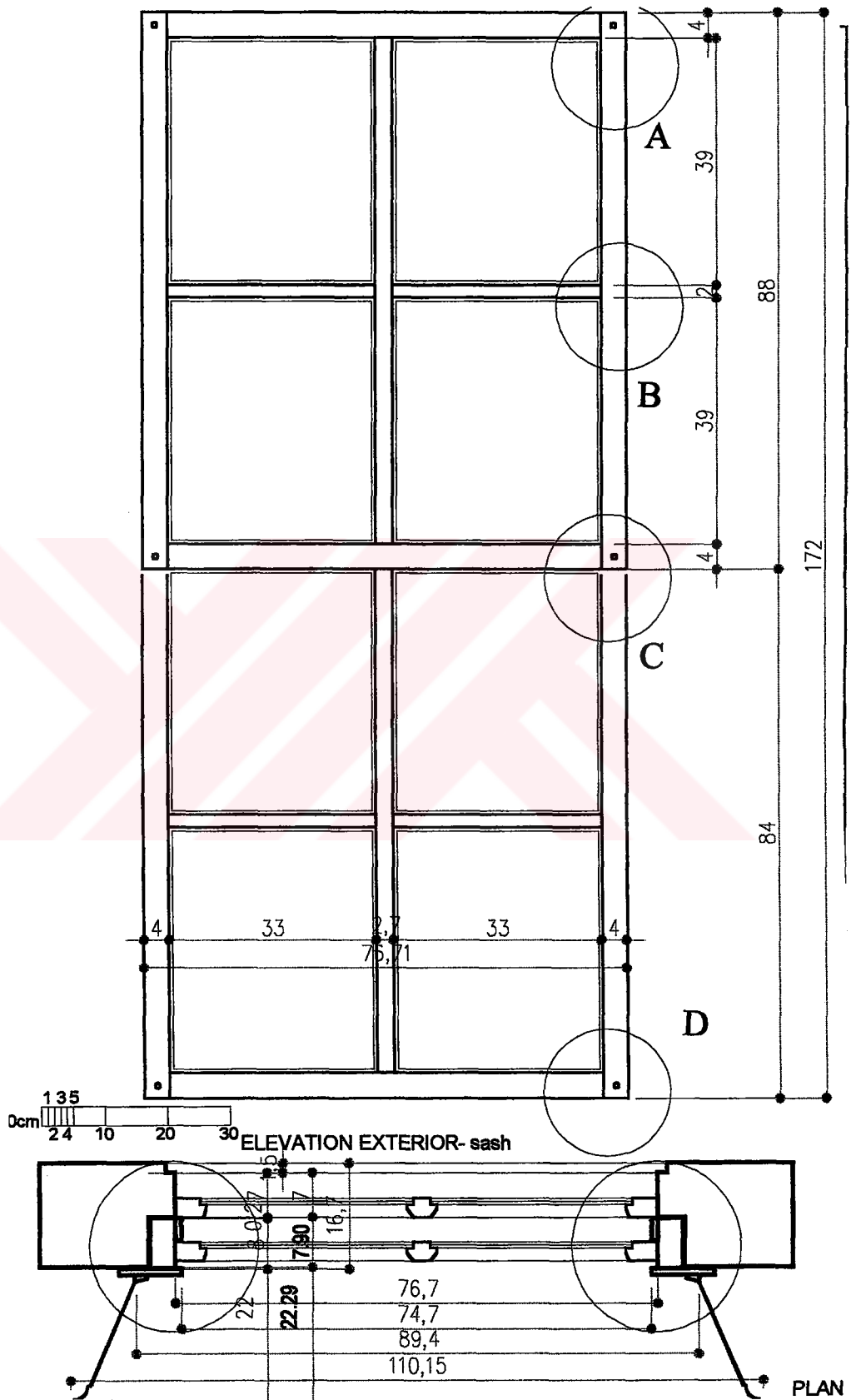


Figure 5.2.28 W03B Exterior Elevation and Plan



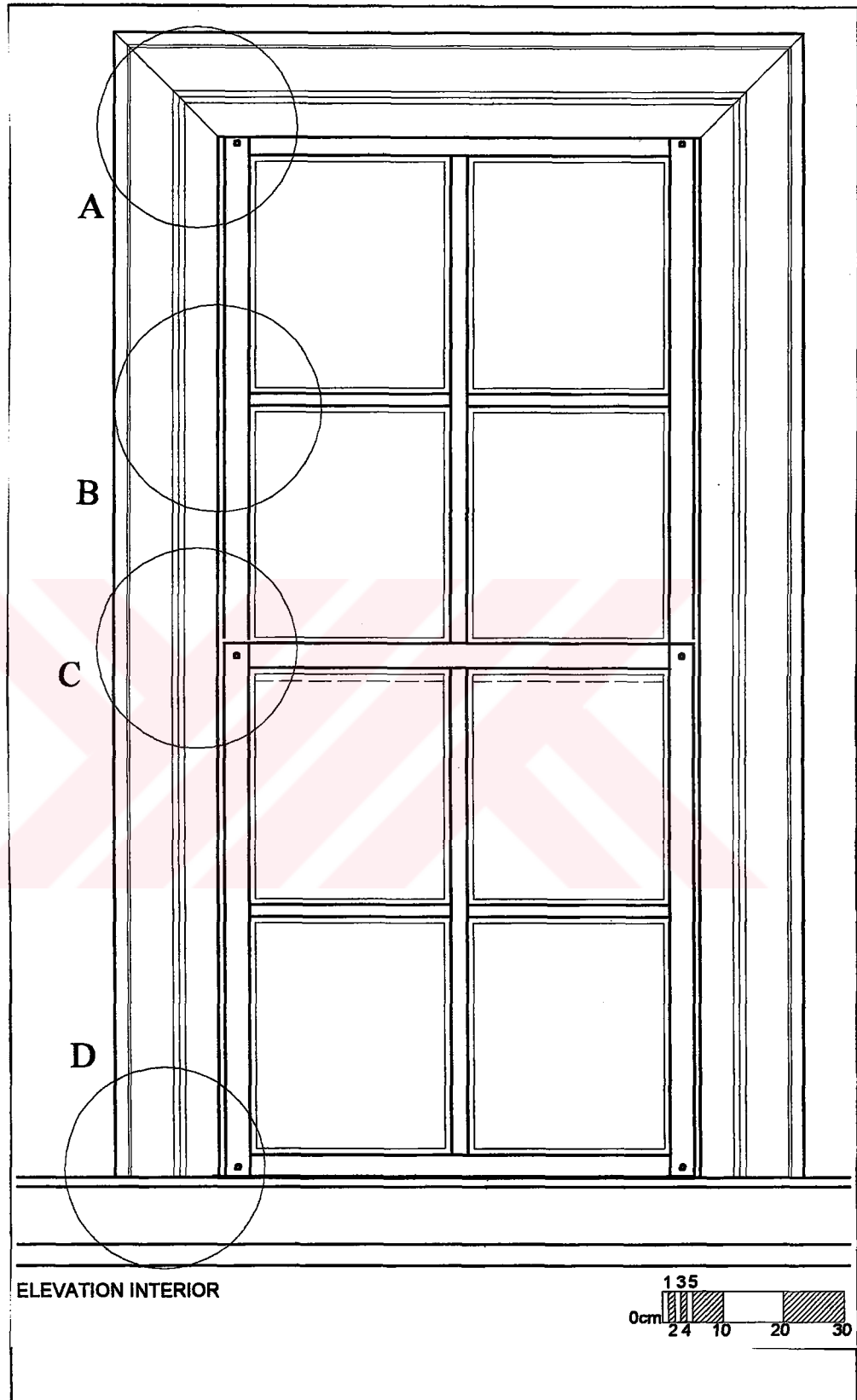


Figure 5.2.29 W03B Interior Elevation

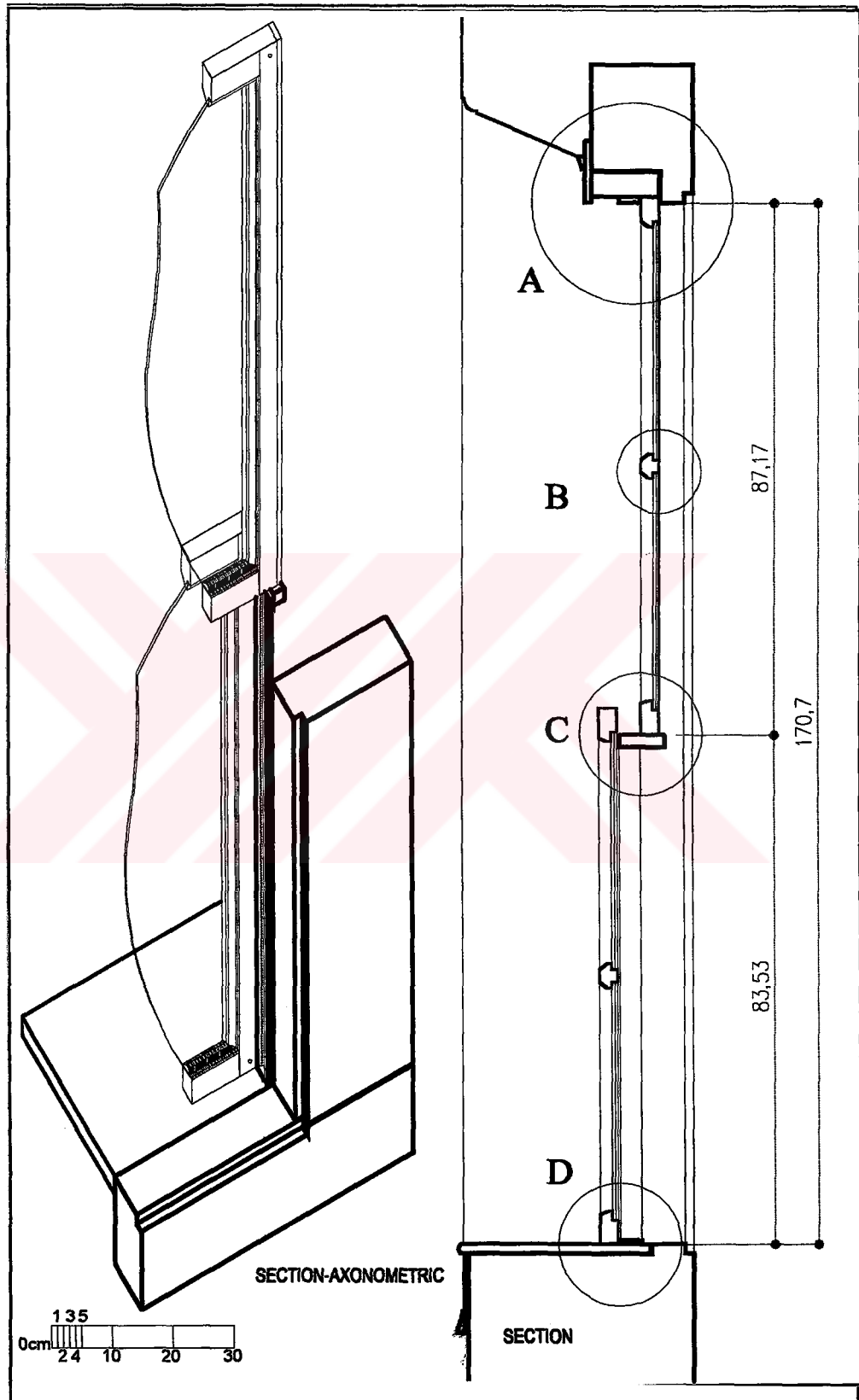


Figure 5.2.30 W03B Section and 3D Drawing

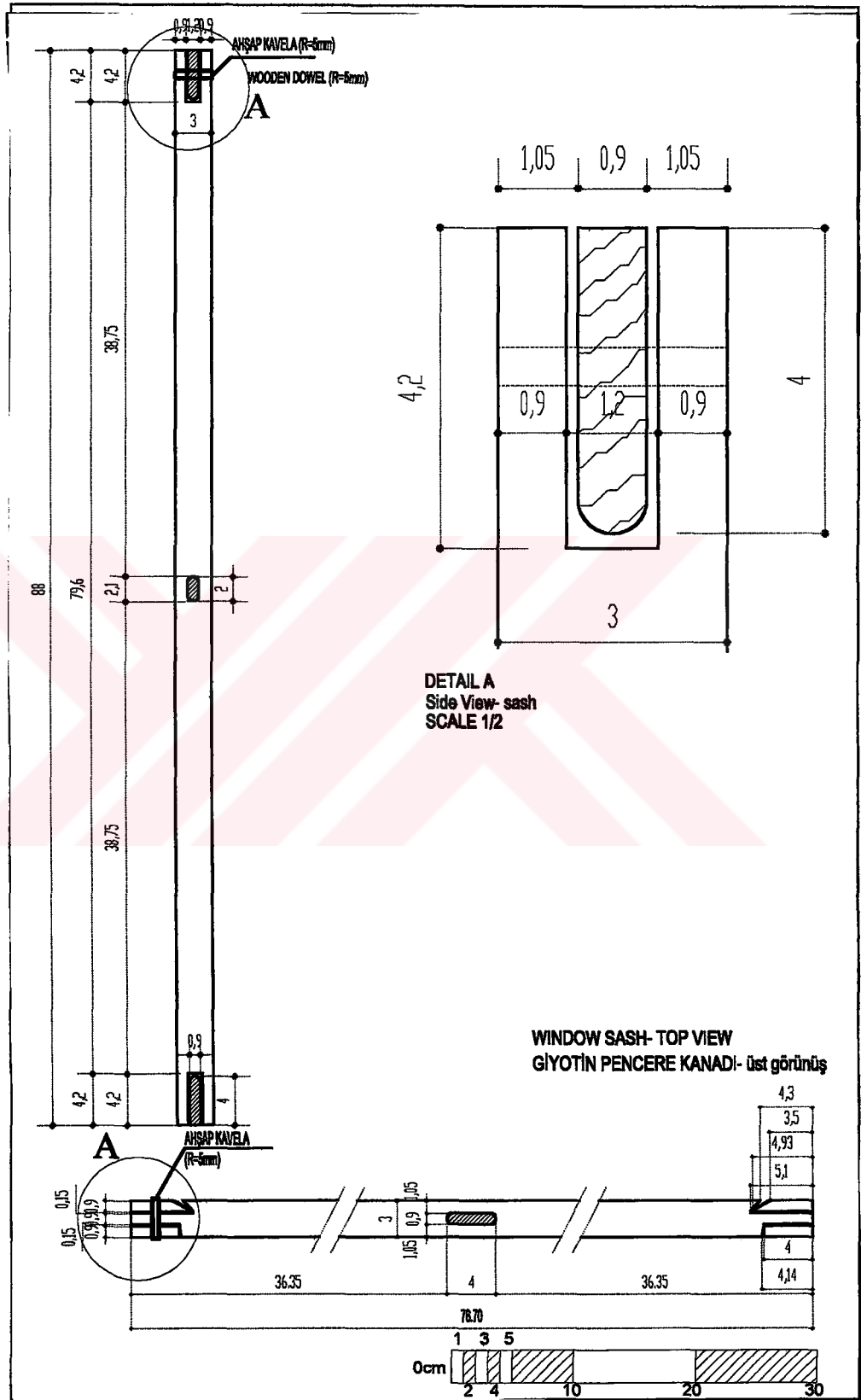


Figure 5.2.31 W03B Details

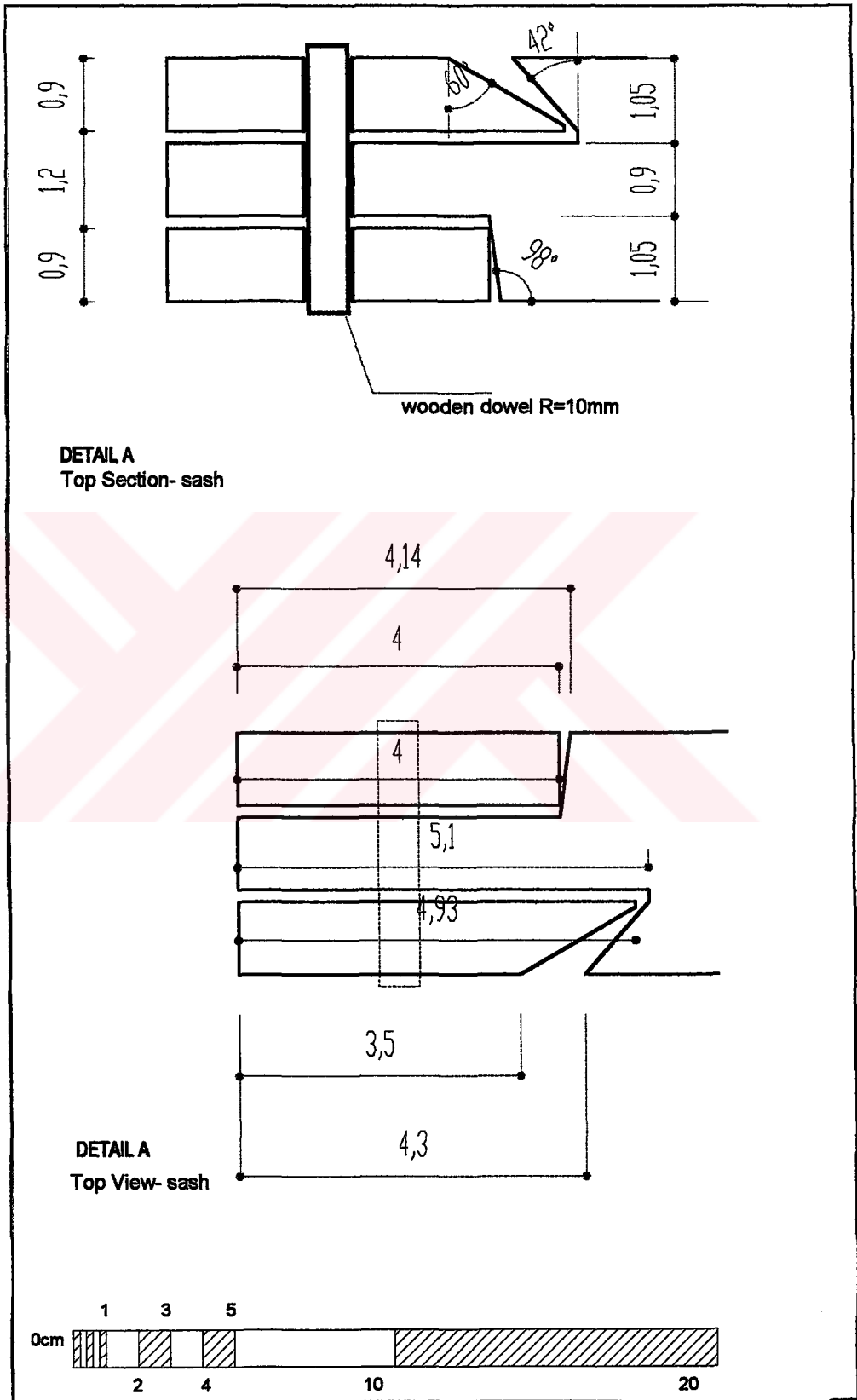


Figure 5.2.32 W03B Details

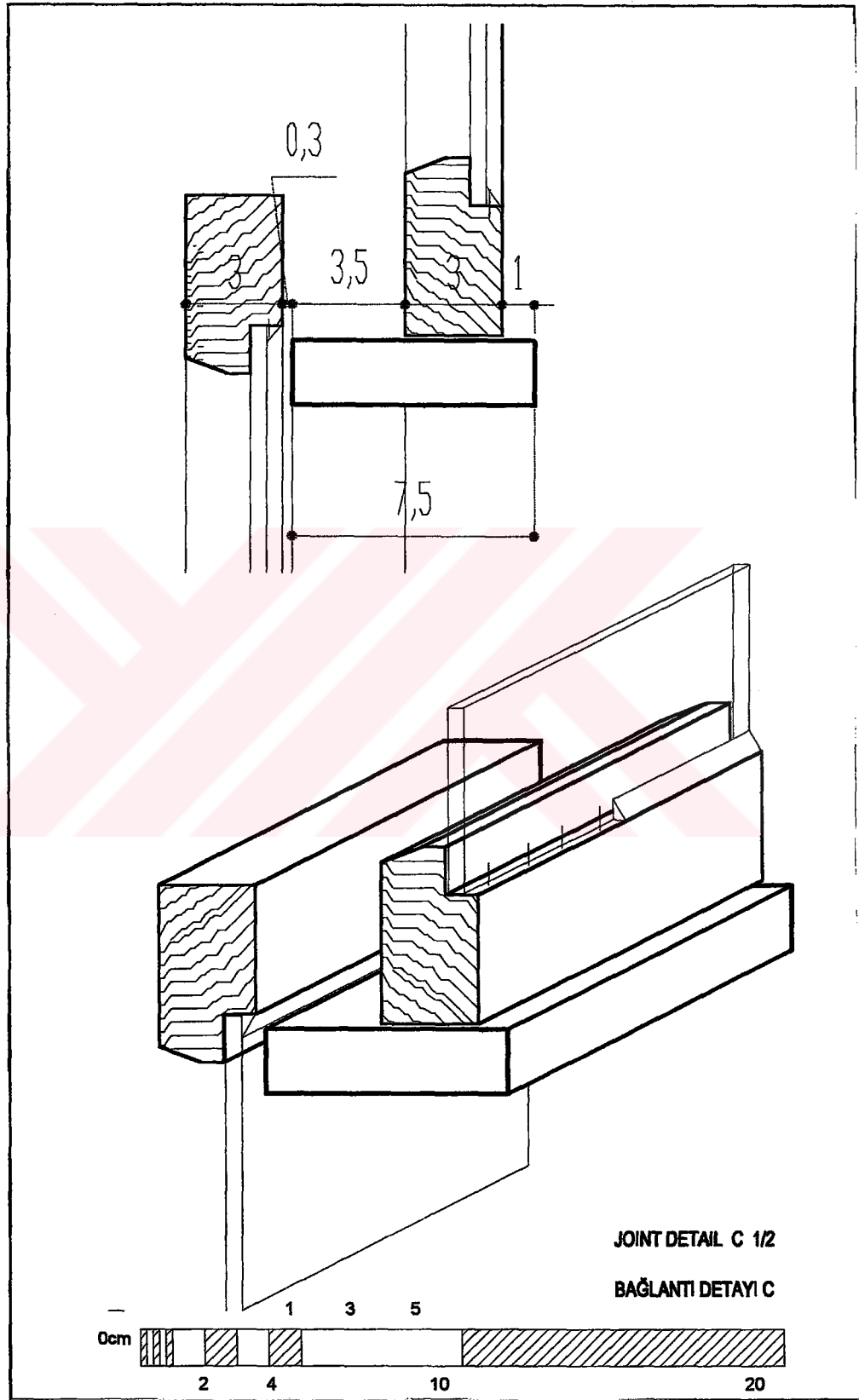


Figure 5.2.33 W03B Details

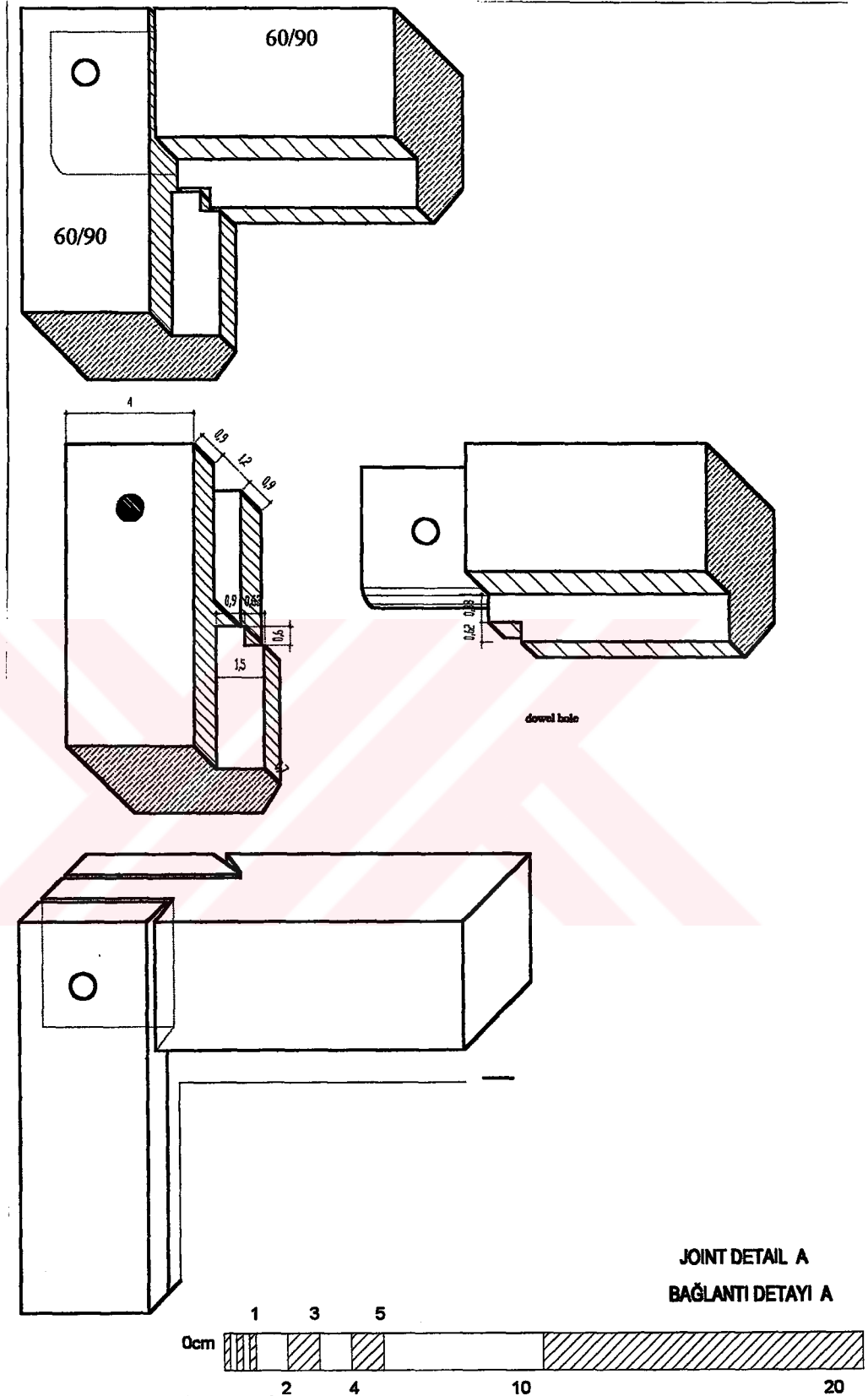


Figure 5.2.34 W03B Details

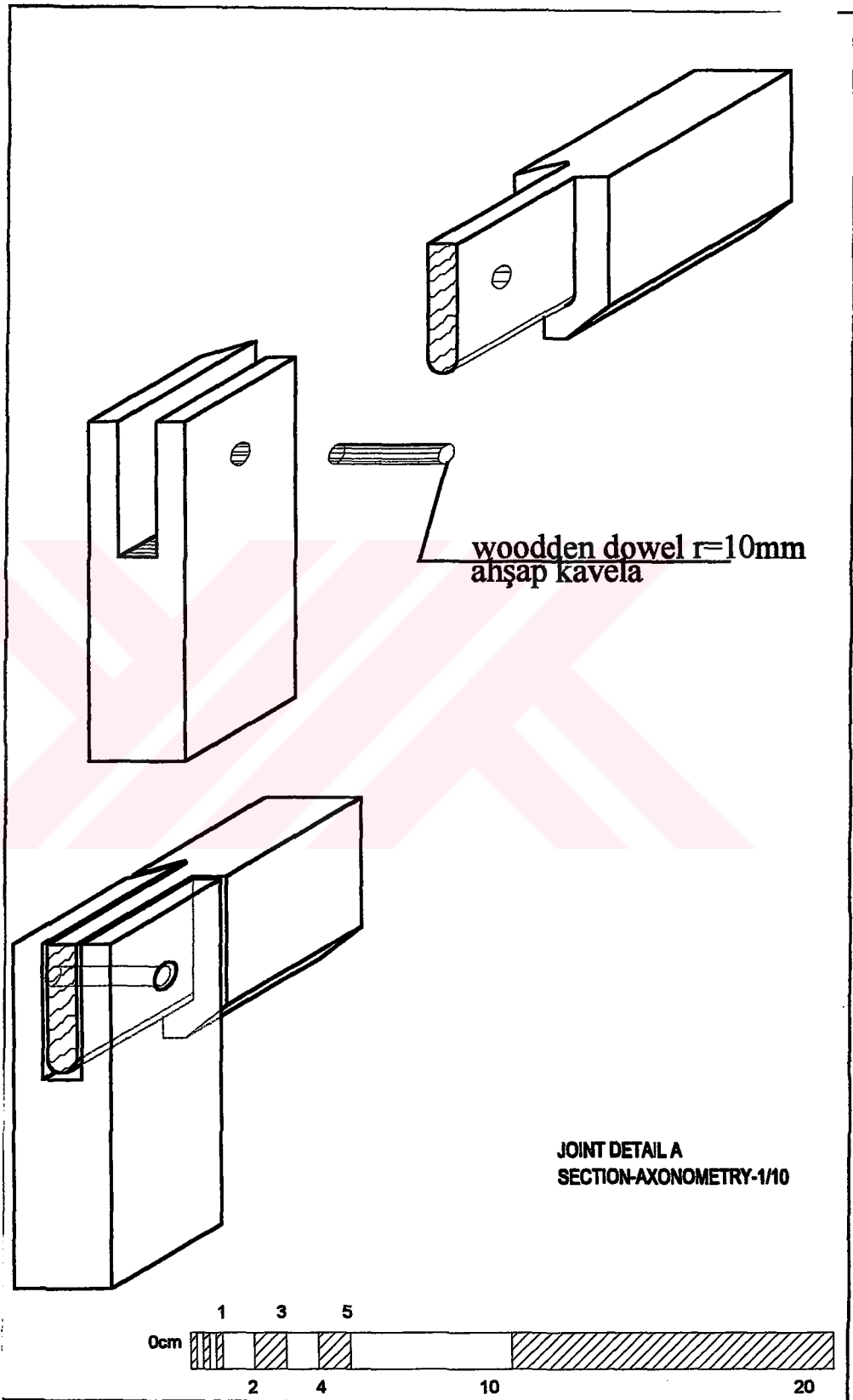
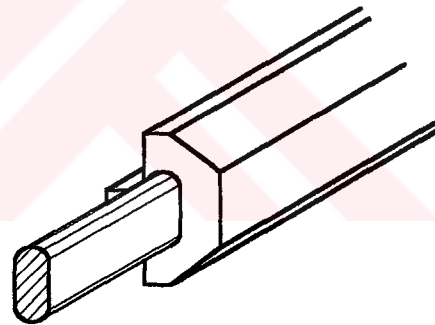
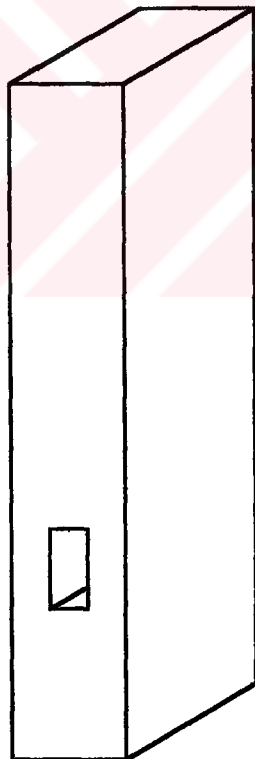
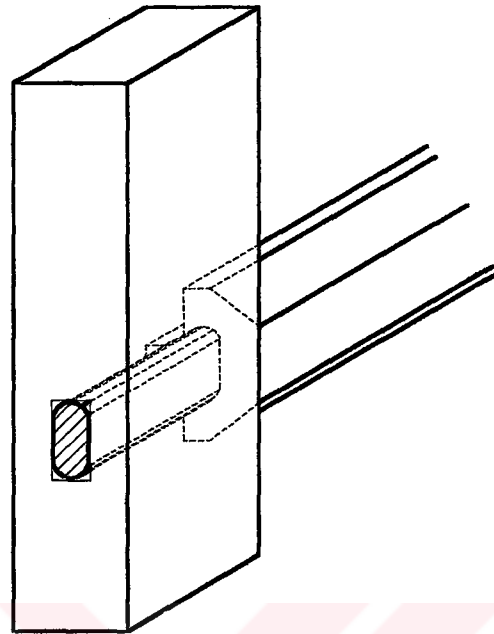


Figure 5.2.35 W03B Details



JOINT DETAIL B

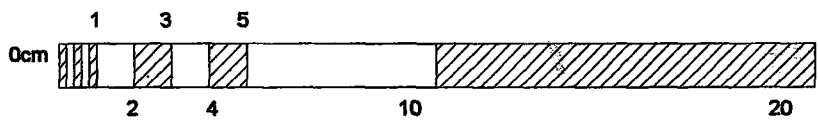
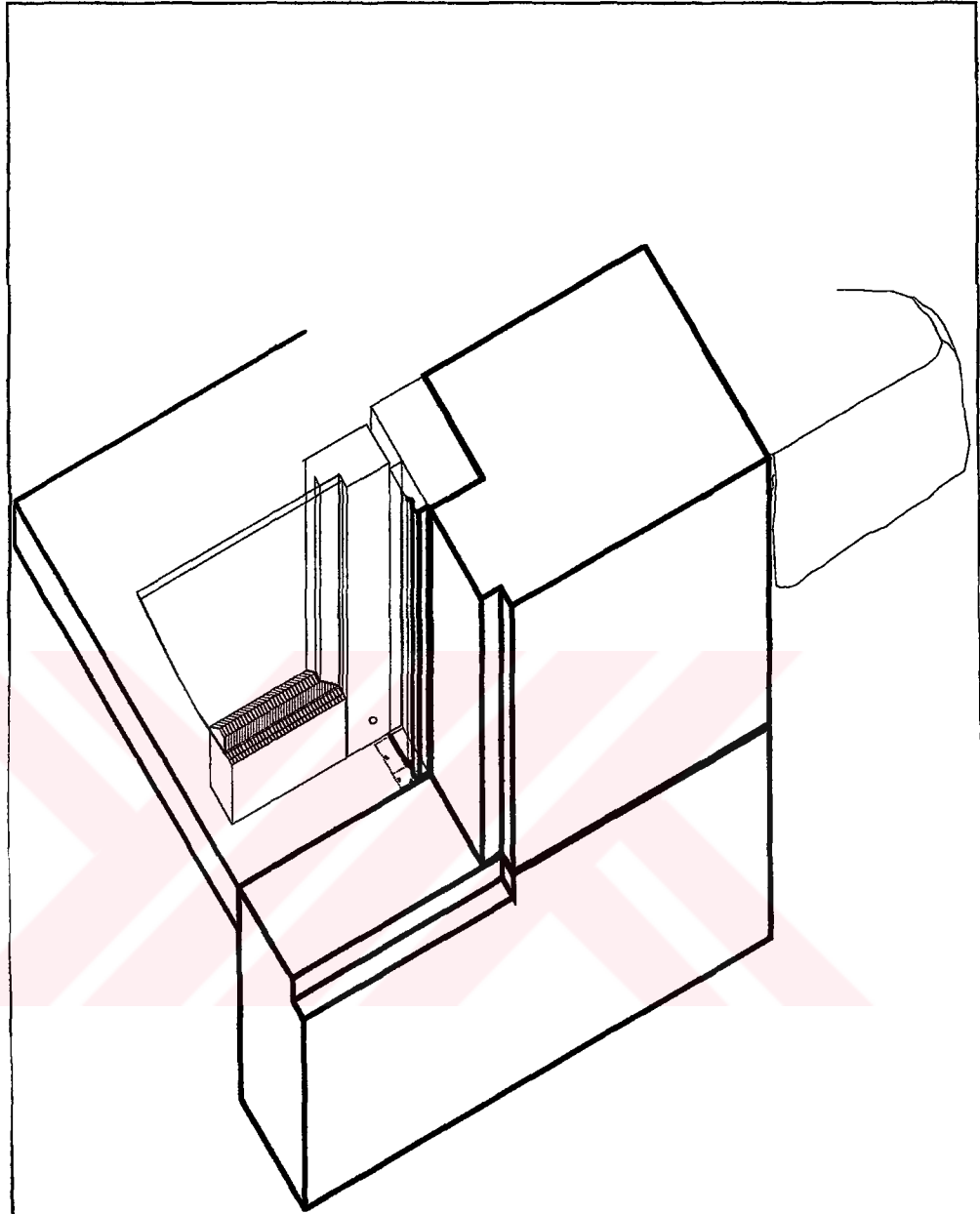


Figure 5.2.36 W03B Details





JOINT DETAIL D

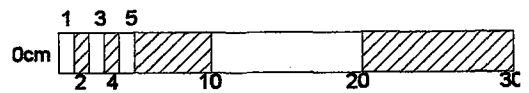
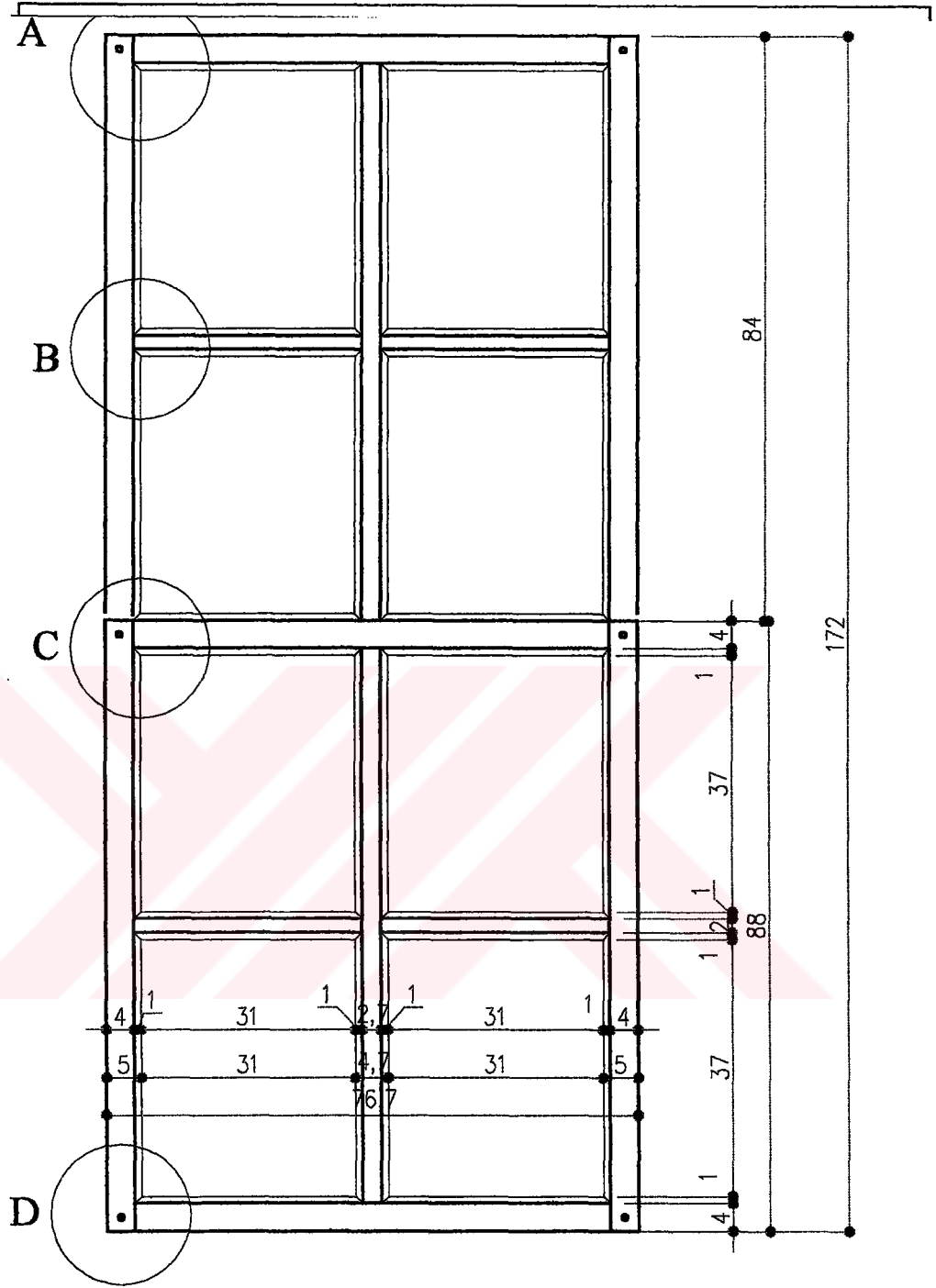


Figure 5.2.37 W03B Details



ELEVATION INTERIOR- sash

İÇ GÖRÜNÜŞ- sürgü kanat

SCALE: 1/5 - 1/2 MD/W01  
 DETAIL B İZMİR STREET NO:96

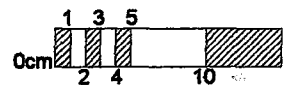


Figure 5.2.38 W03B Recommendations- Exterior Elevation

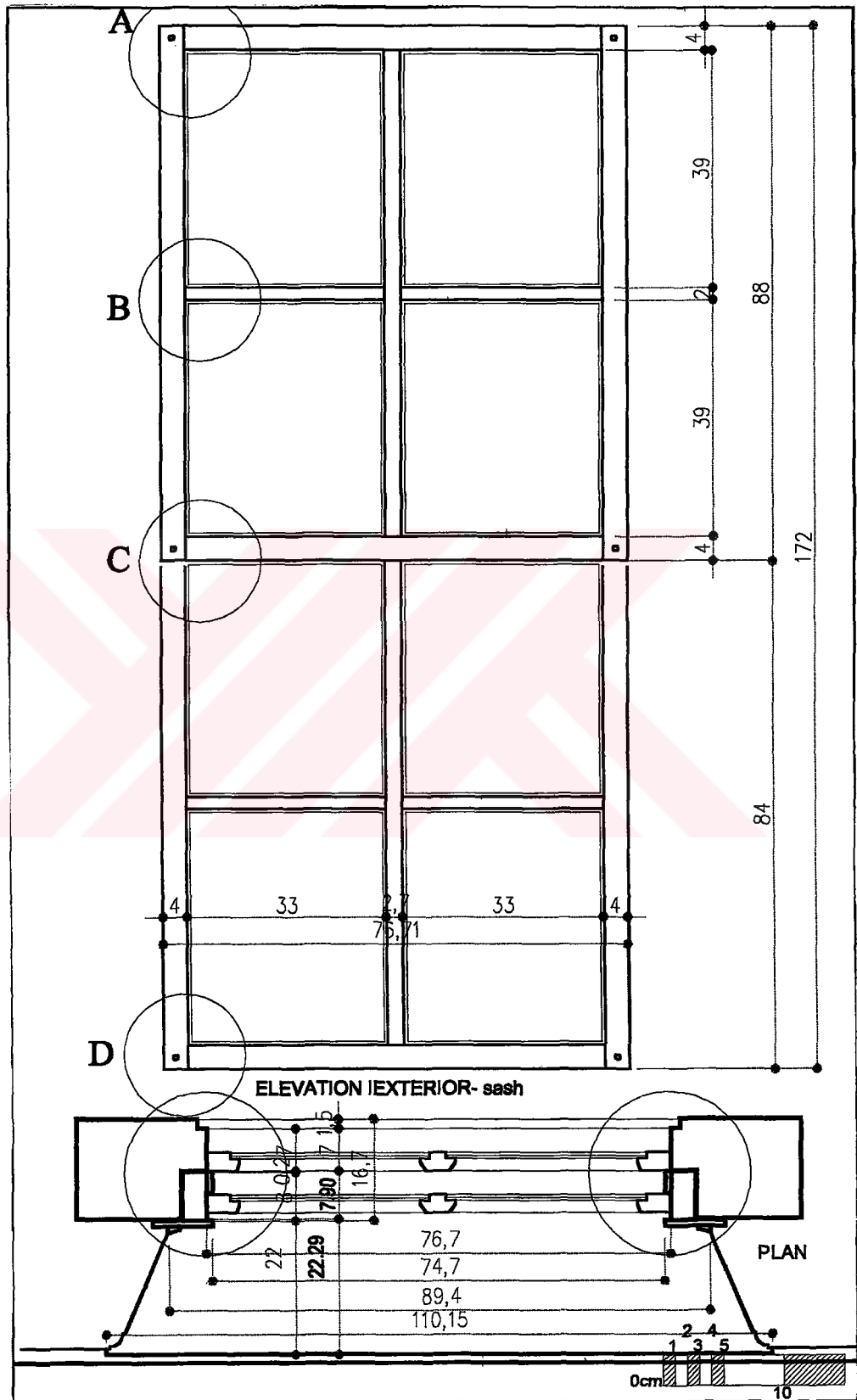


Figure 5.2.39 W03B Recommendations- Interior Elevation

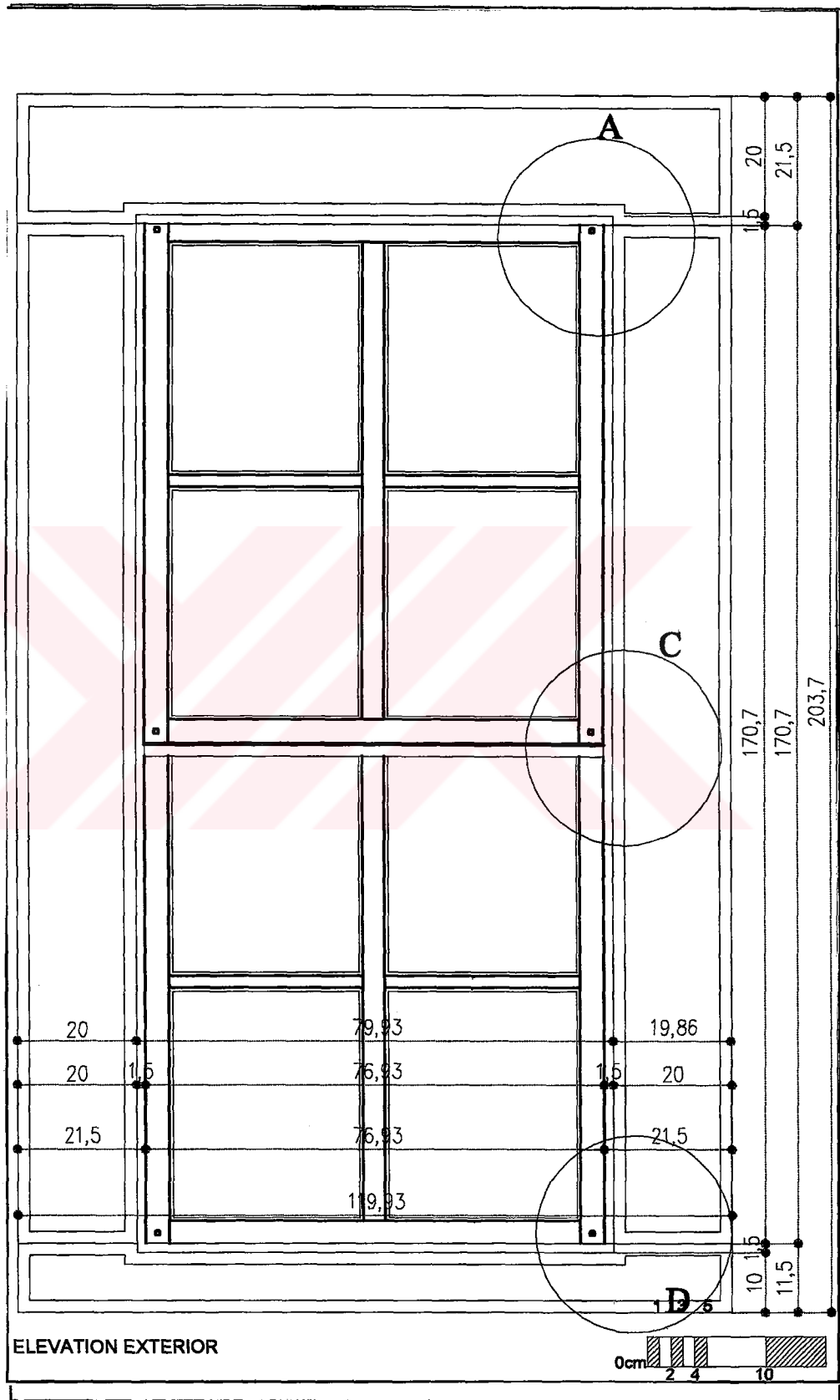
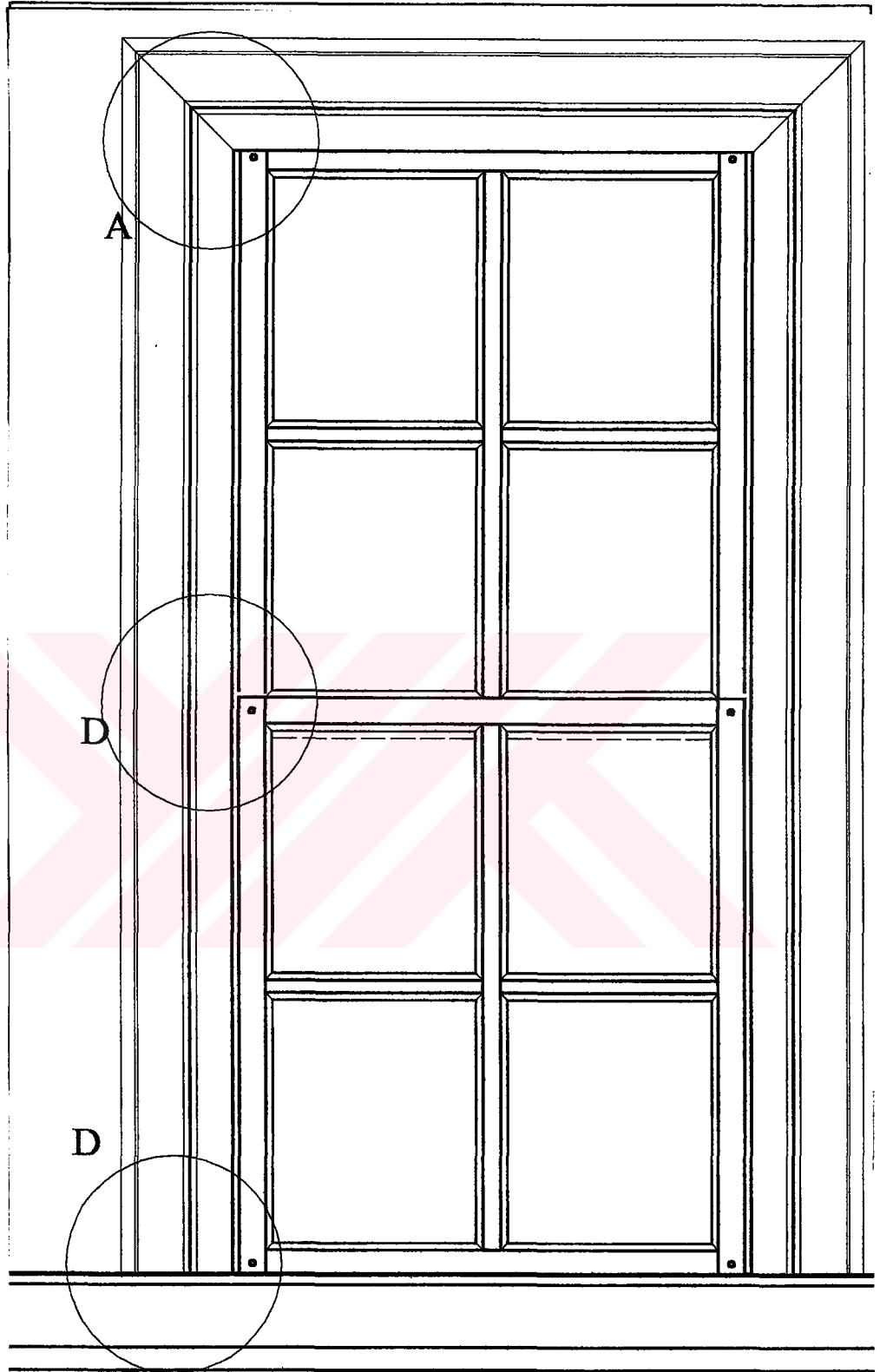


Figure 5.2.40 W03B Recommendations – Exterior Elevation



ELEVATION INTERIOR

İÇ GÖRÜNÜŞ

Figure 5.2.41 W03B Recommendations- Interior Elevation

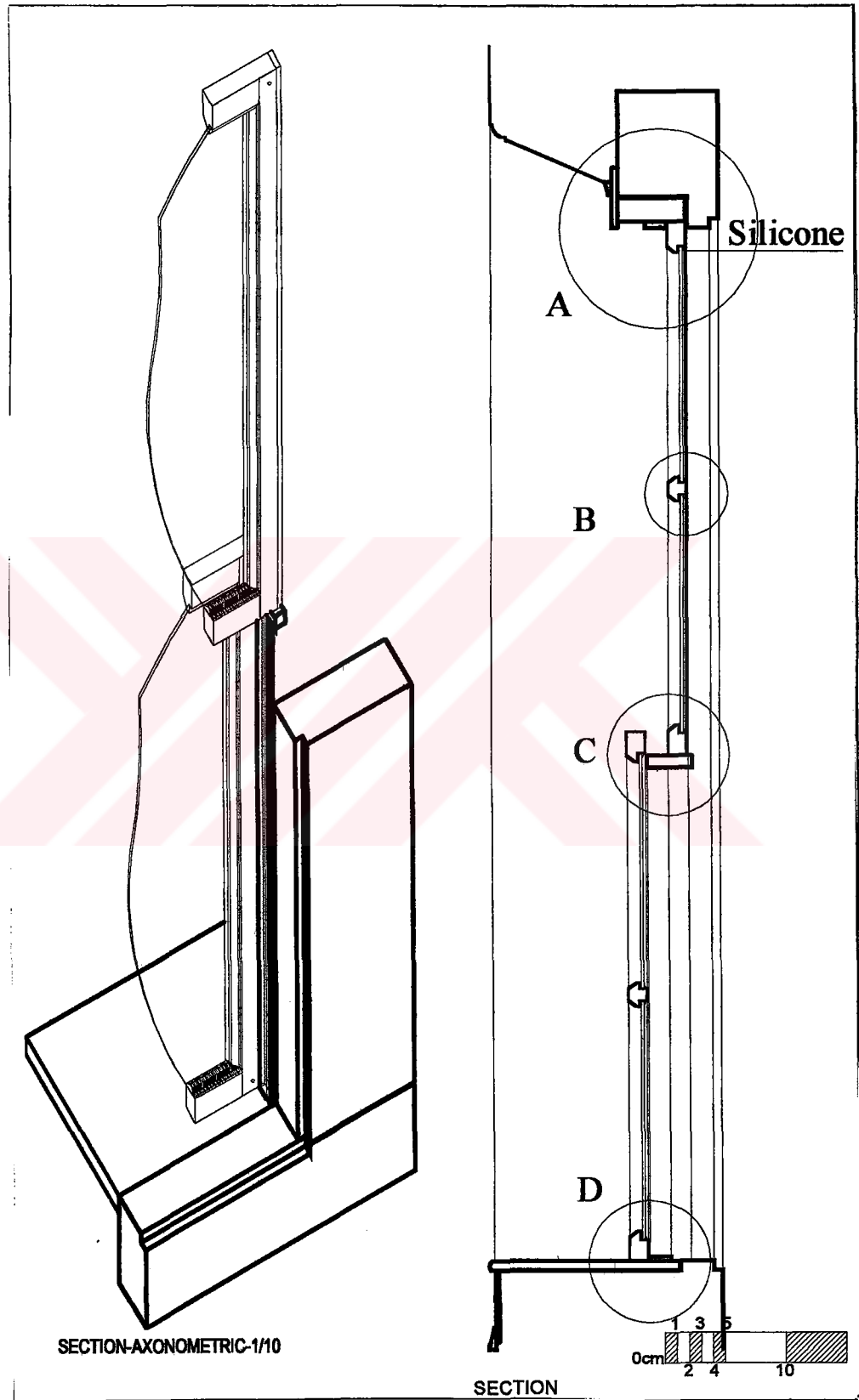


Figure 5.2.42 W03B Recommendations – Section and 3D Drawing

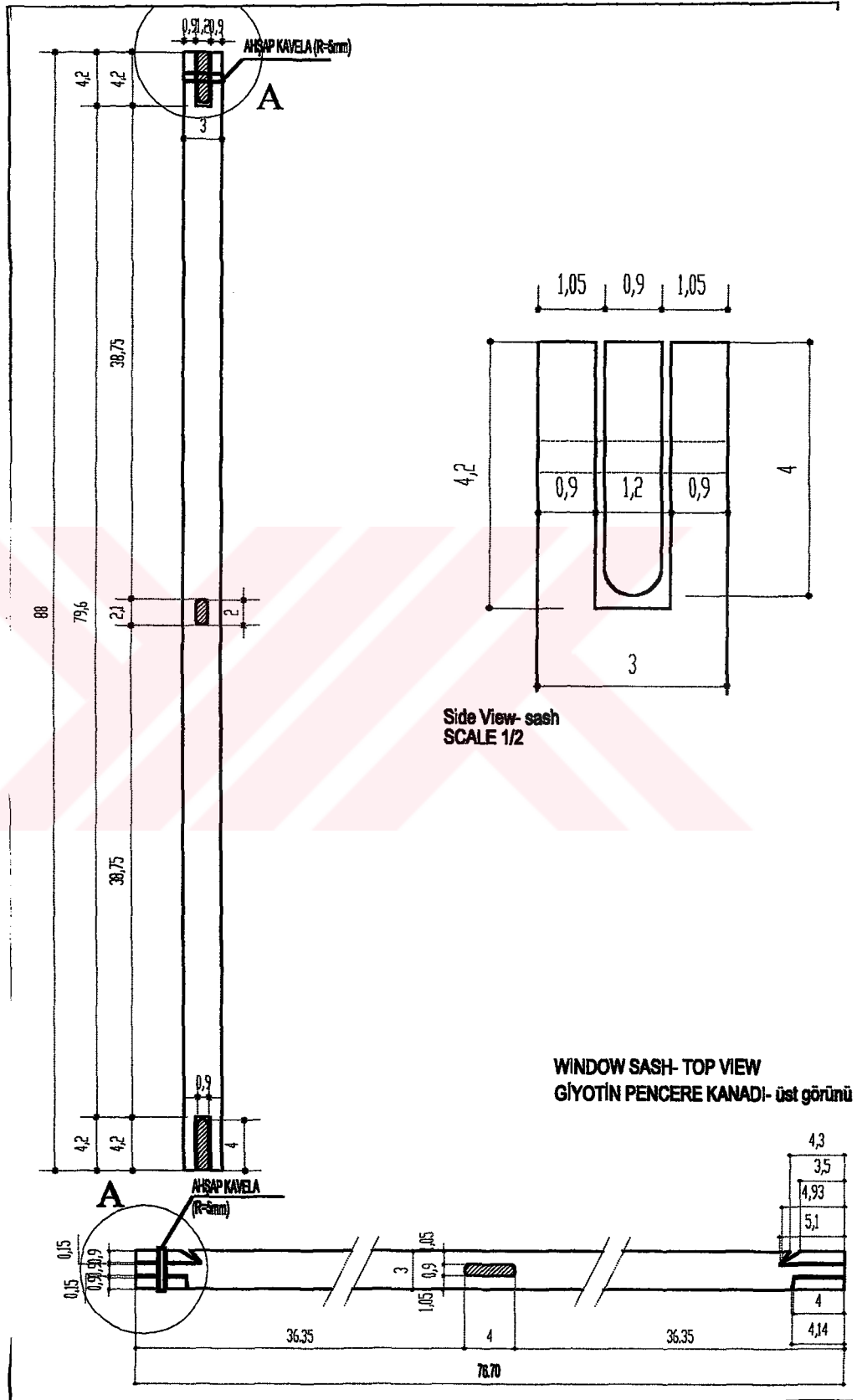


Figure 5.2.43 Recommendations – W03B Details

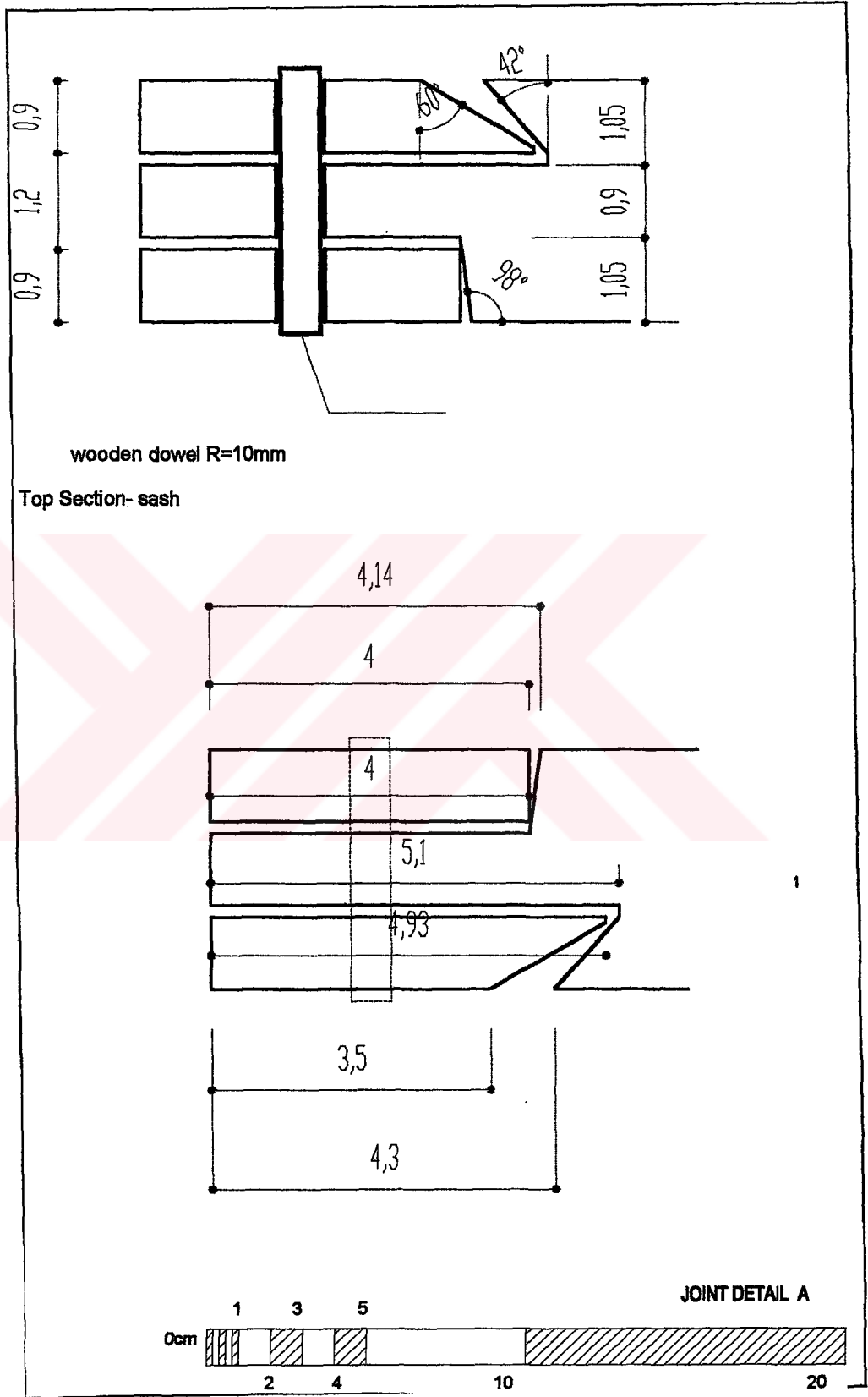


Figure 5.2.44 Recommendations – W03B Details



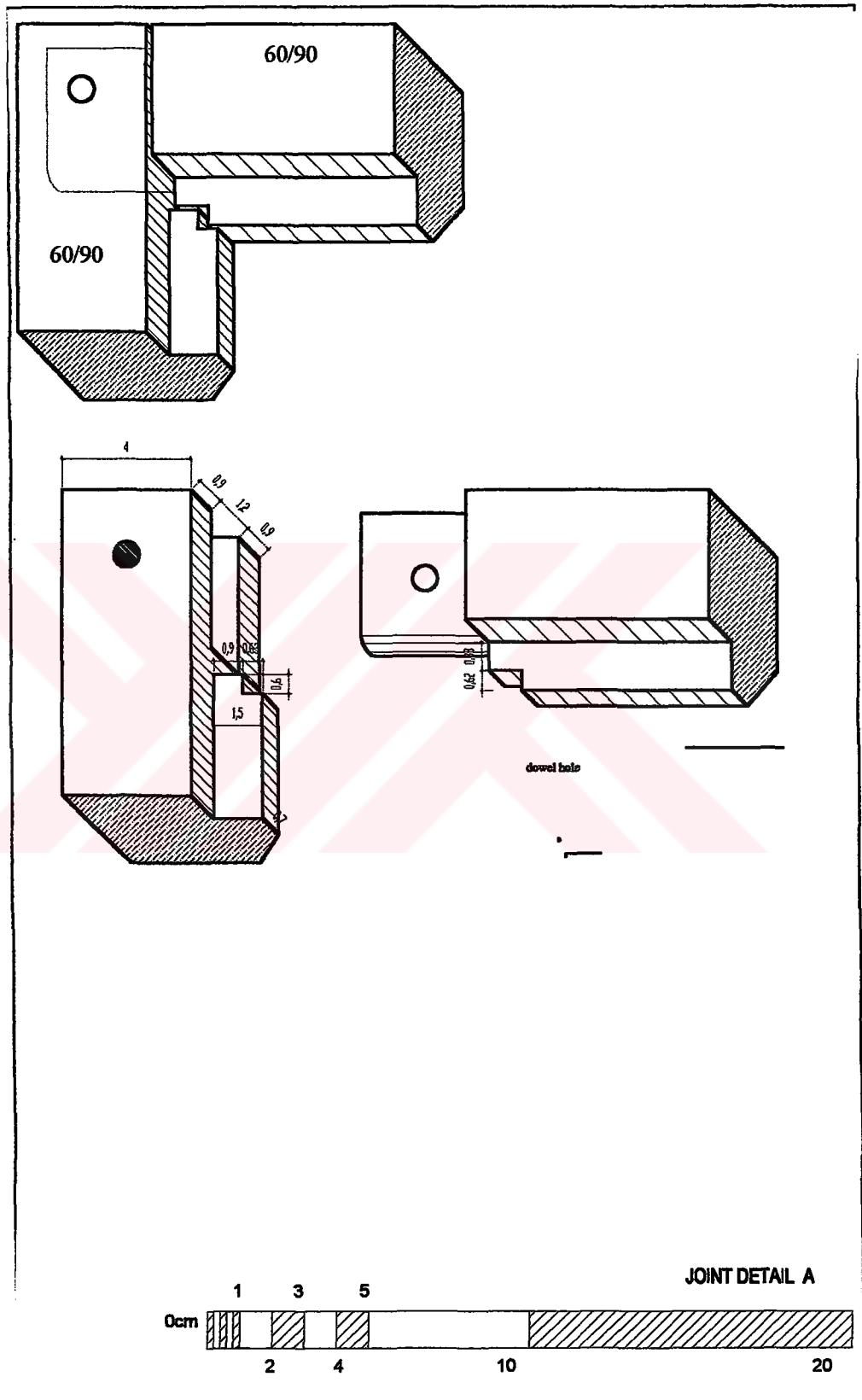


Figure 5.2.45 Recommendations – W03B Details

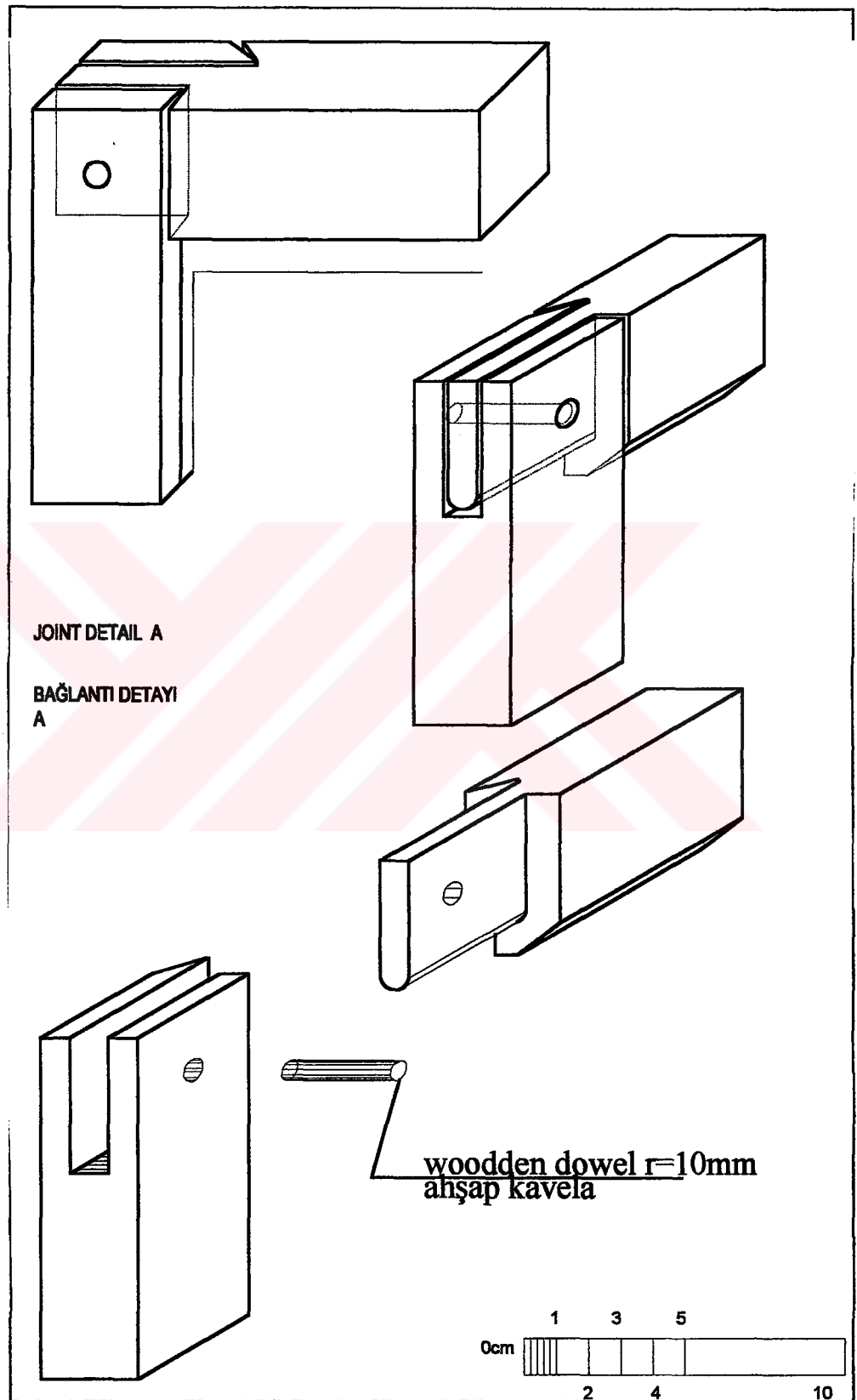


Figure 5.2.46 Recommendations -- W03B Details

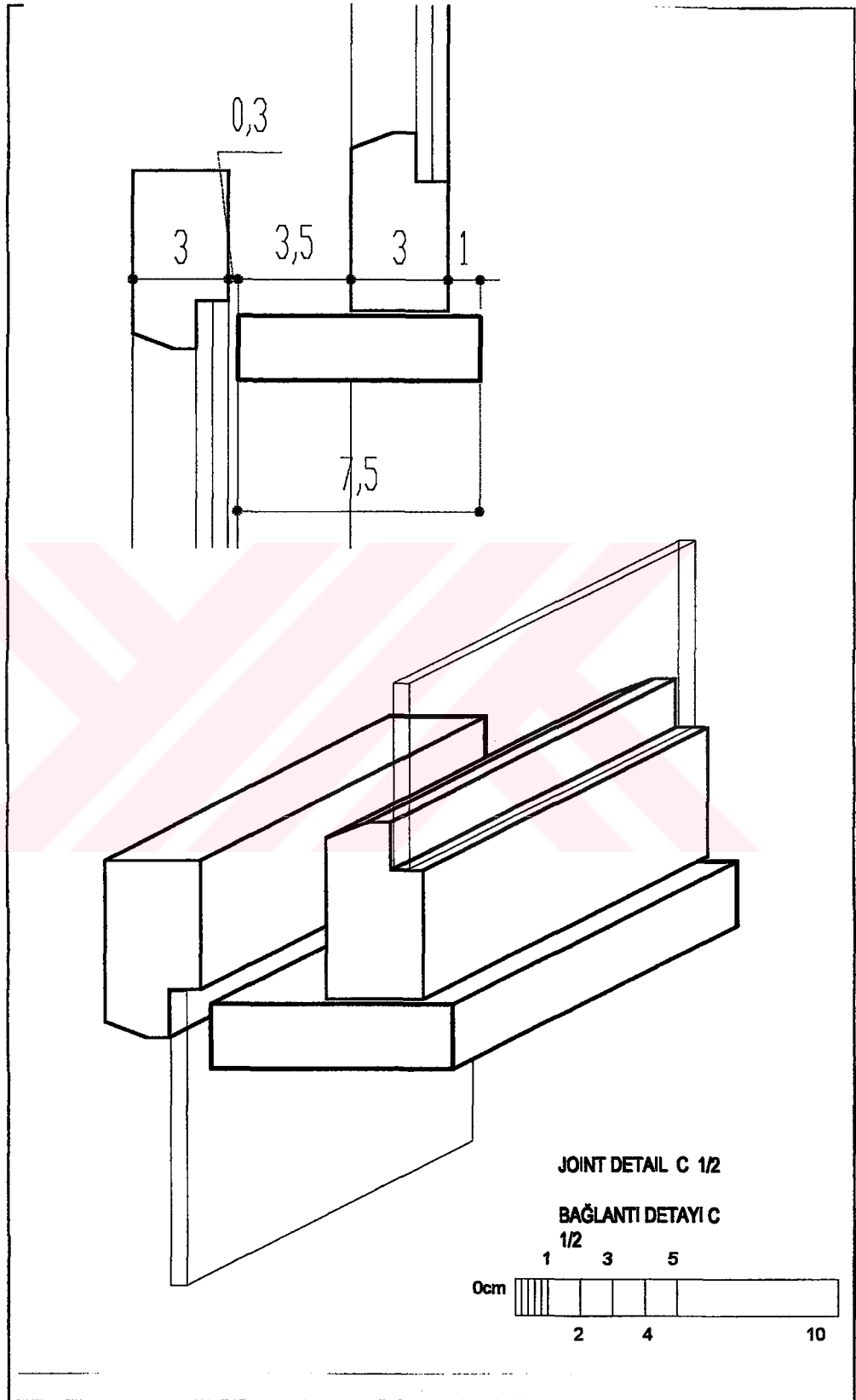


Figure 5.2.47 Recommendations – W03B Details

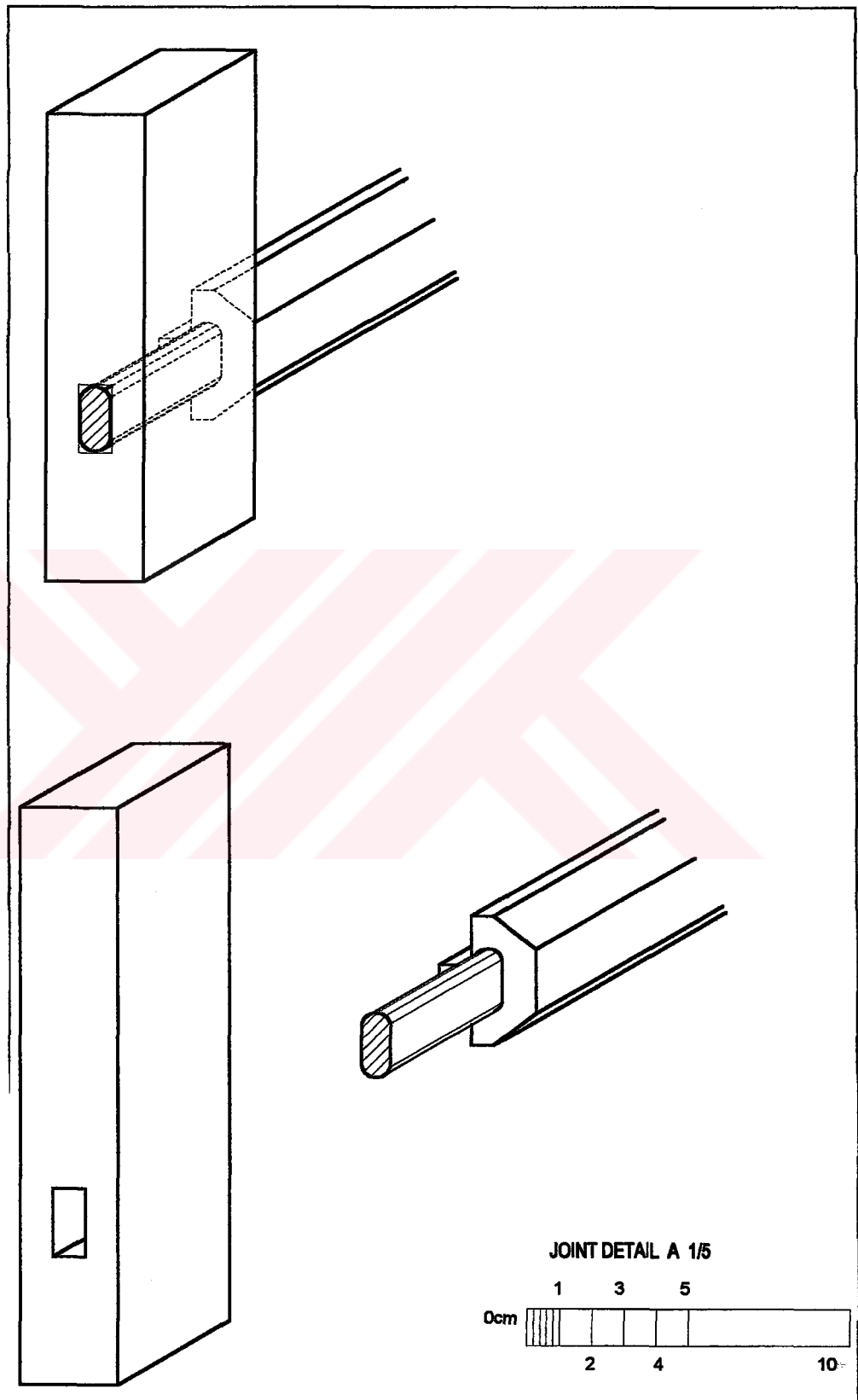


Figure 5.2.47 Recommendations – W03B Details

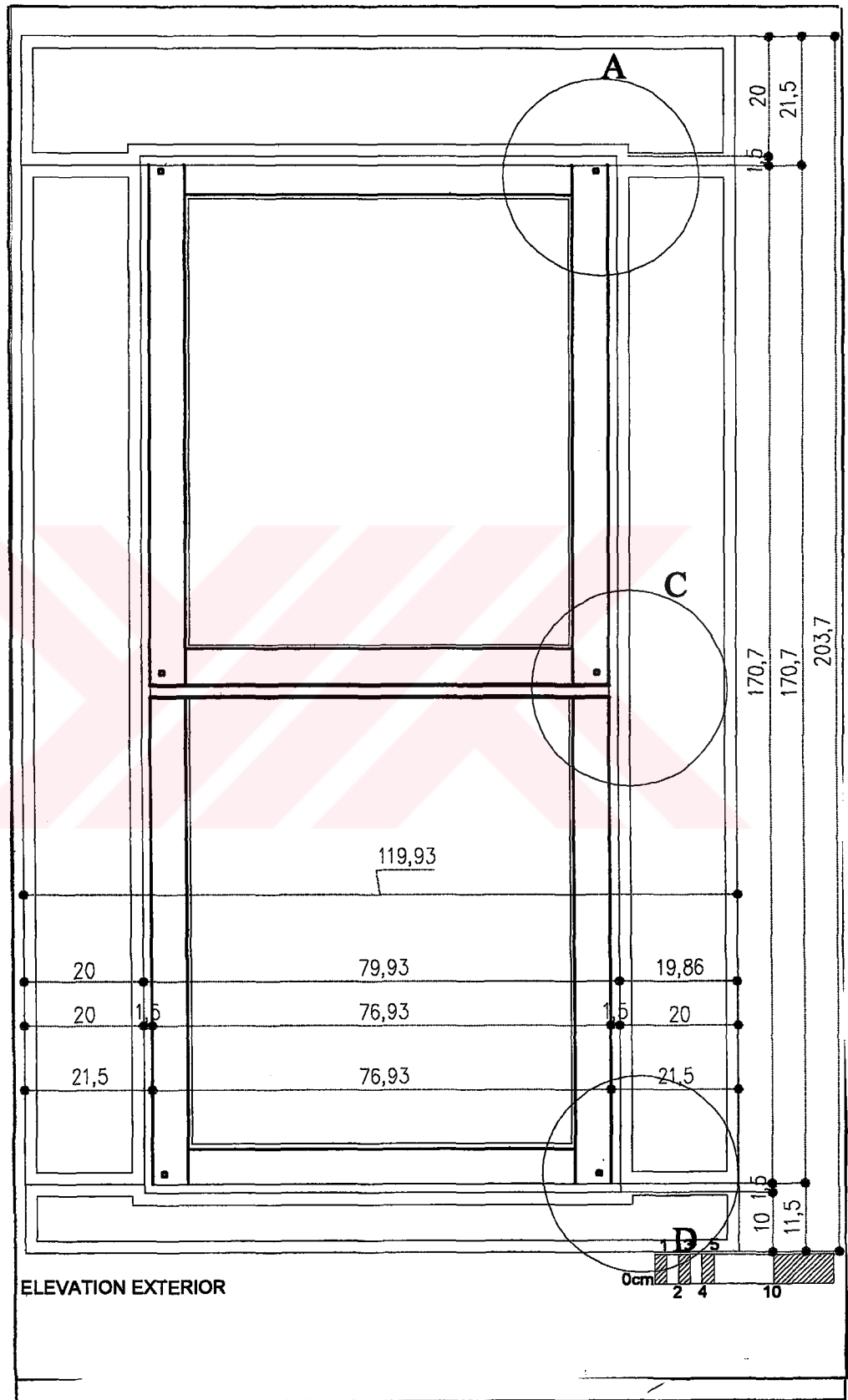
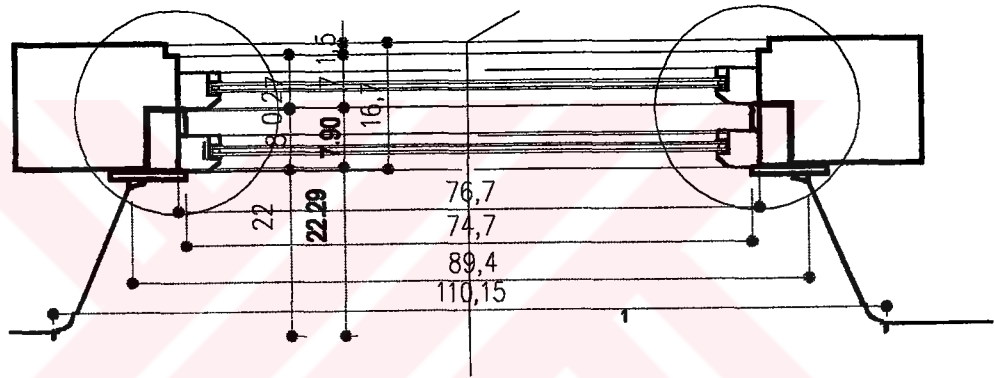


Figure 5.2.48 W03A Sahil Caddesi No:63 - Exterior Elevation



PLAN

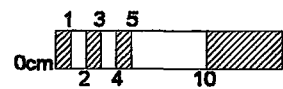


Figure 5.2.49 W03A Plan

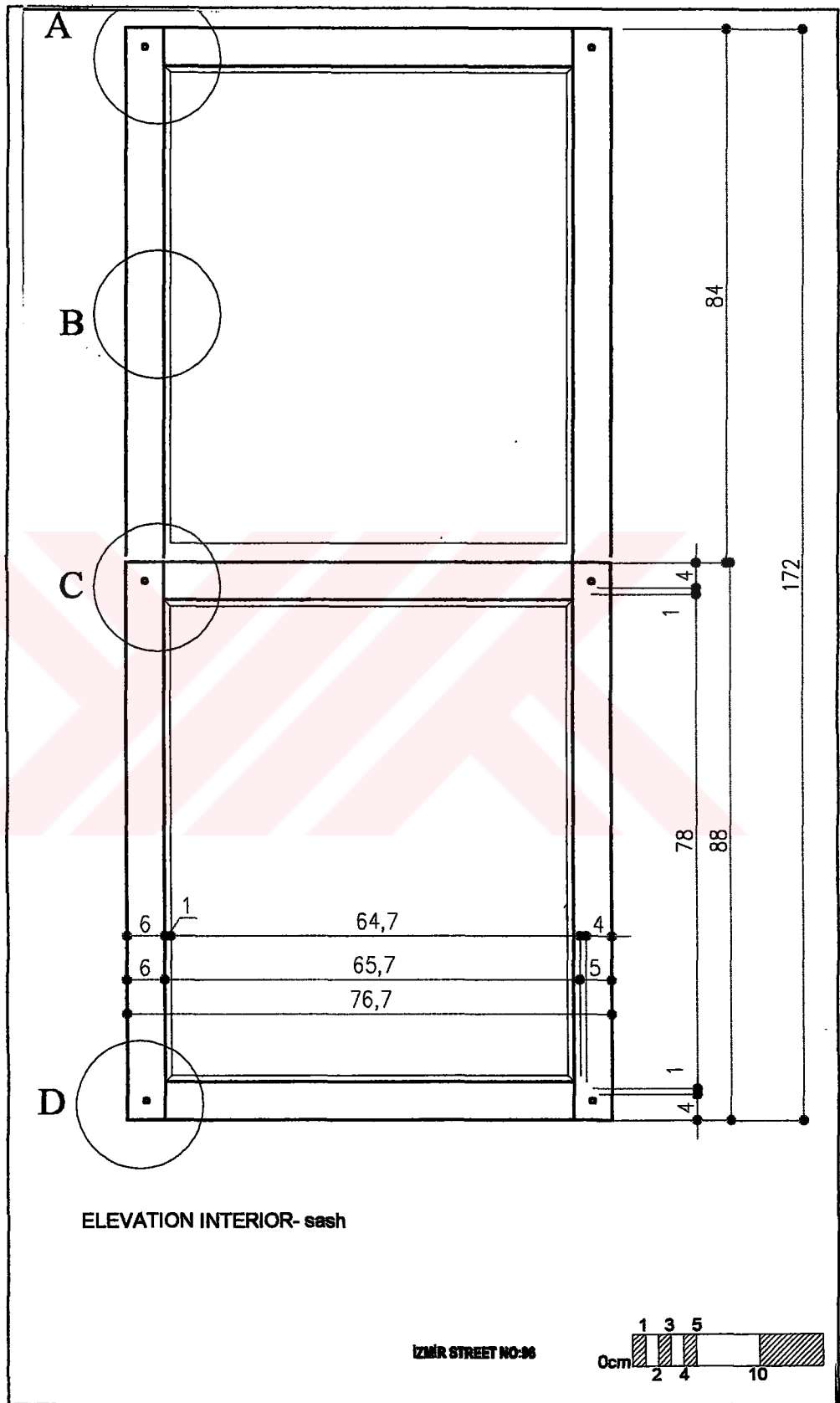


Figure 5.2.50 W03A Interior Elevation

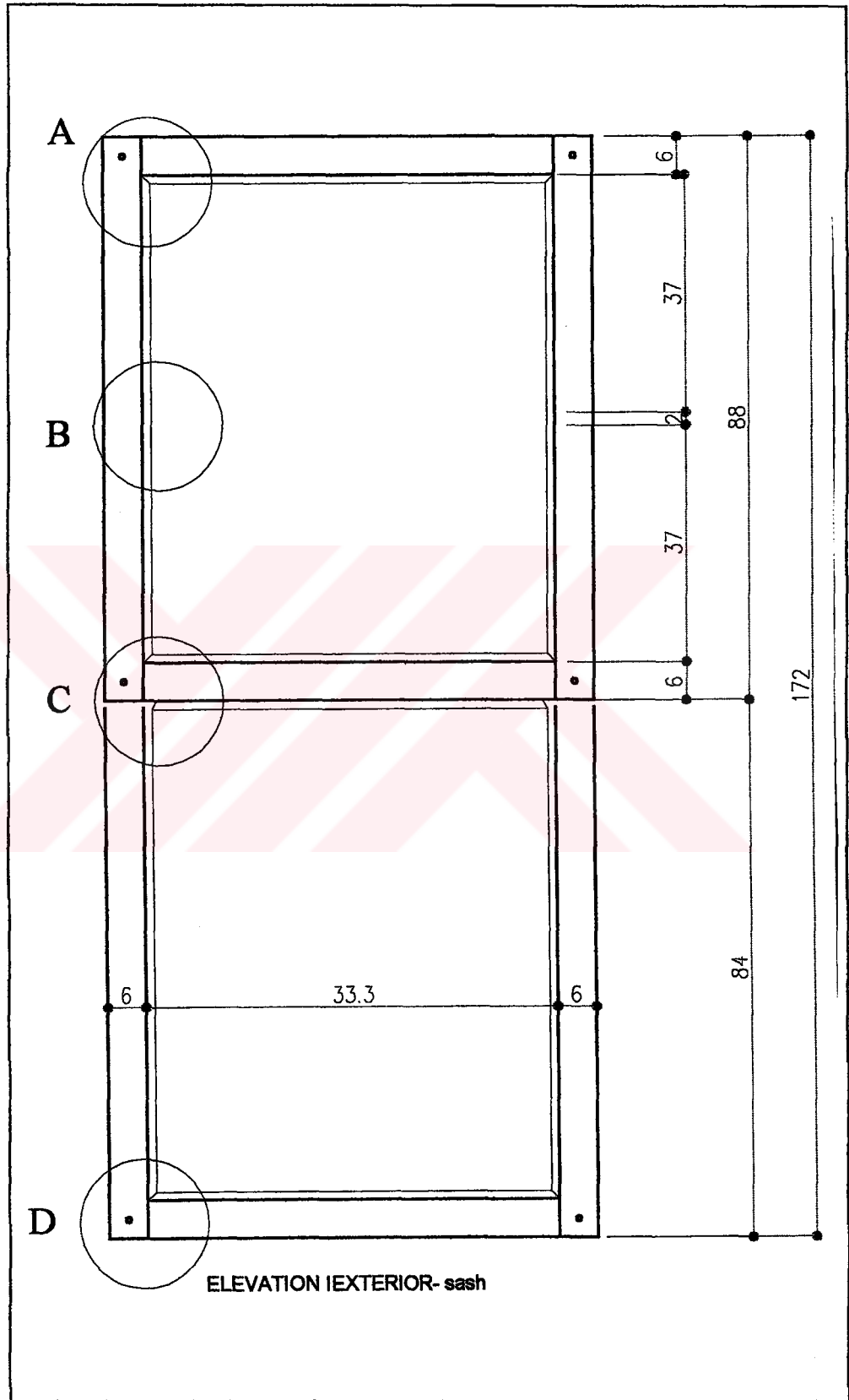


Figure 5.2.51 W03A Interior Elevation



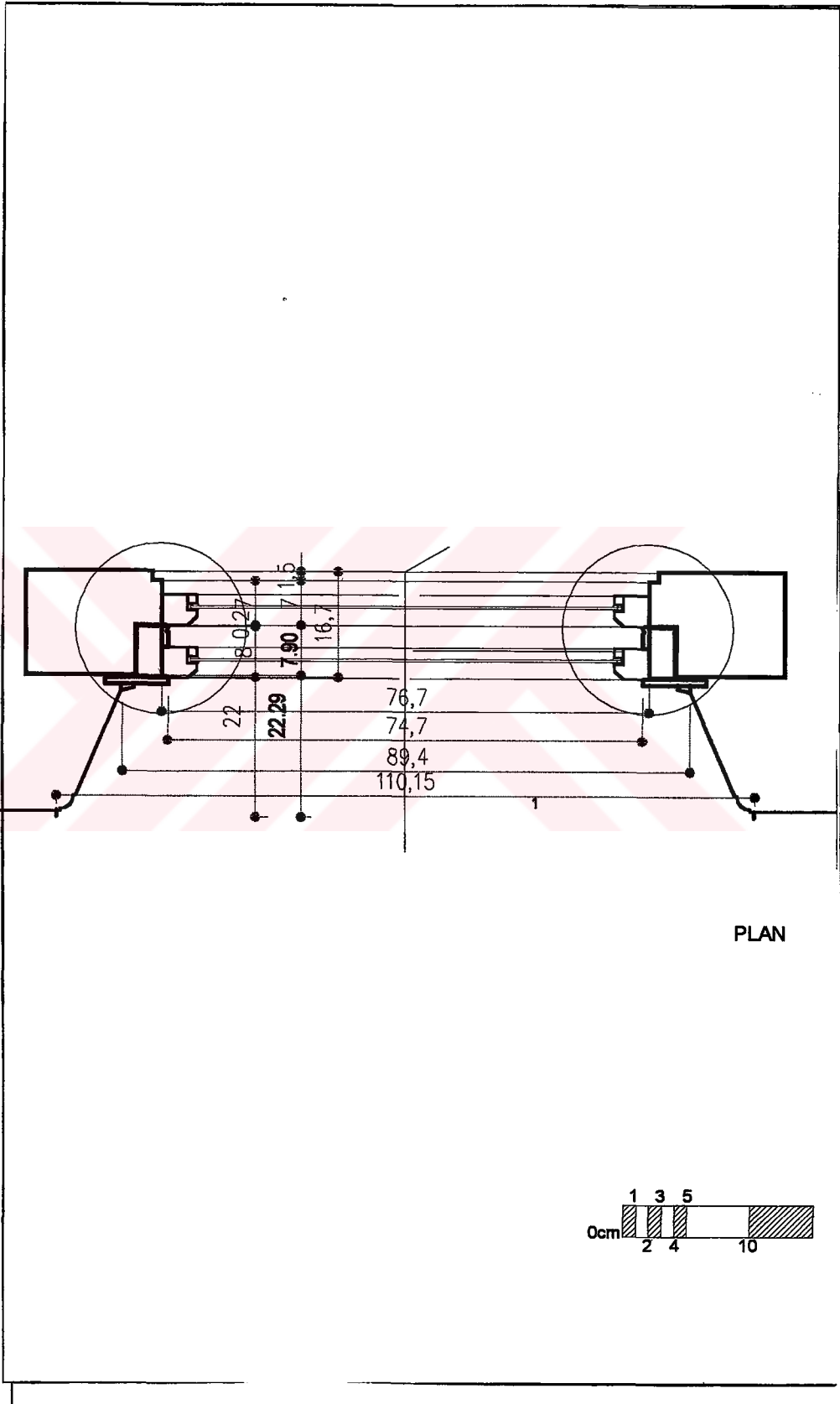
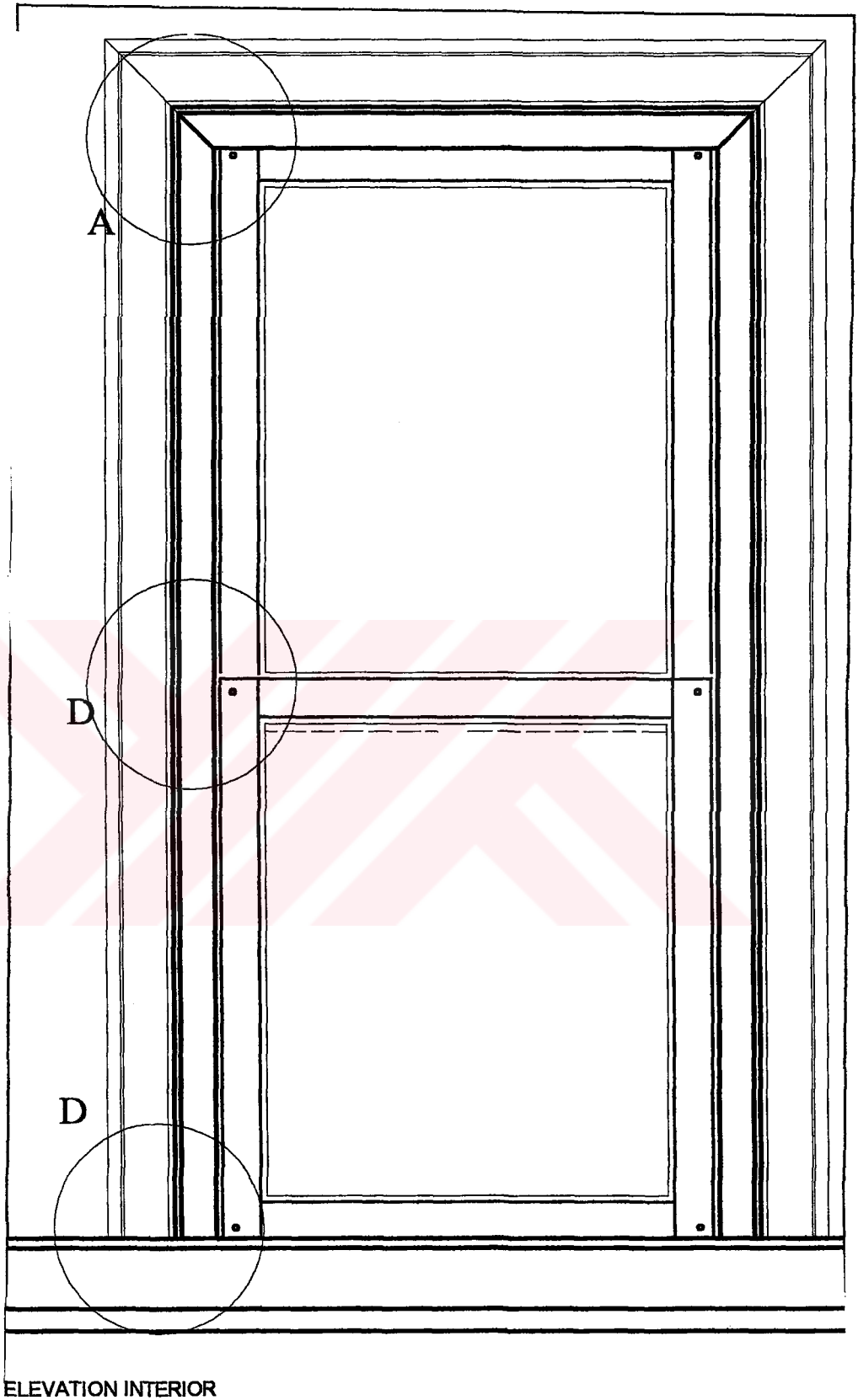


Figure 5.2.52 W03A Plan



ELEVATION INTERIOR  
Figure 5.2.53 W03A Interior Elevation

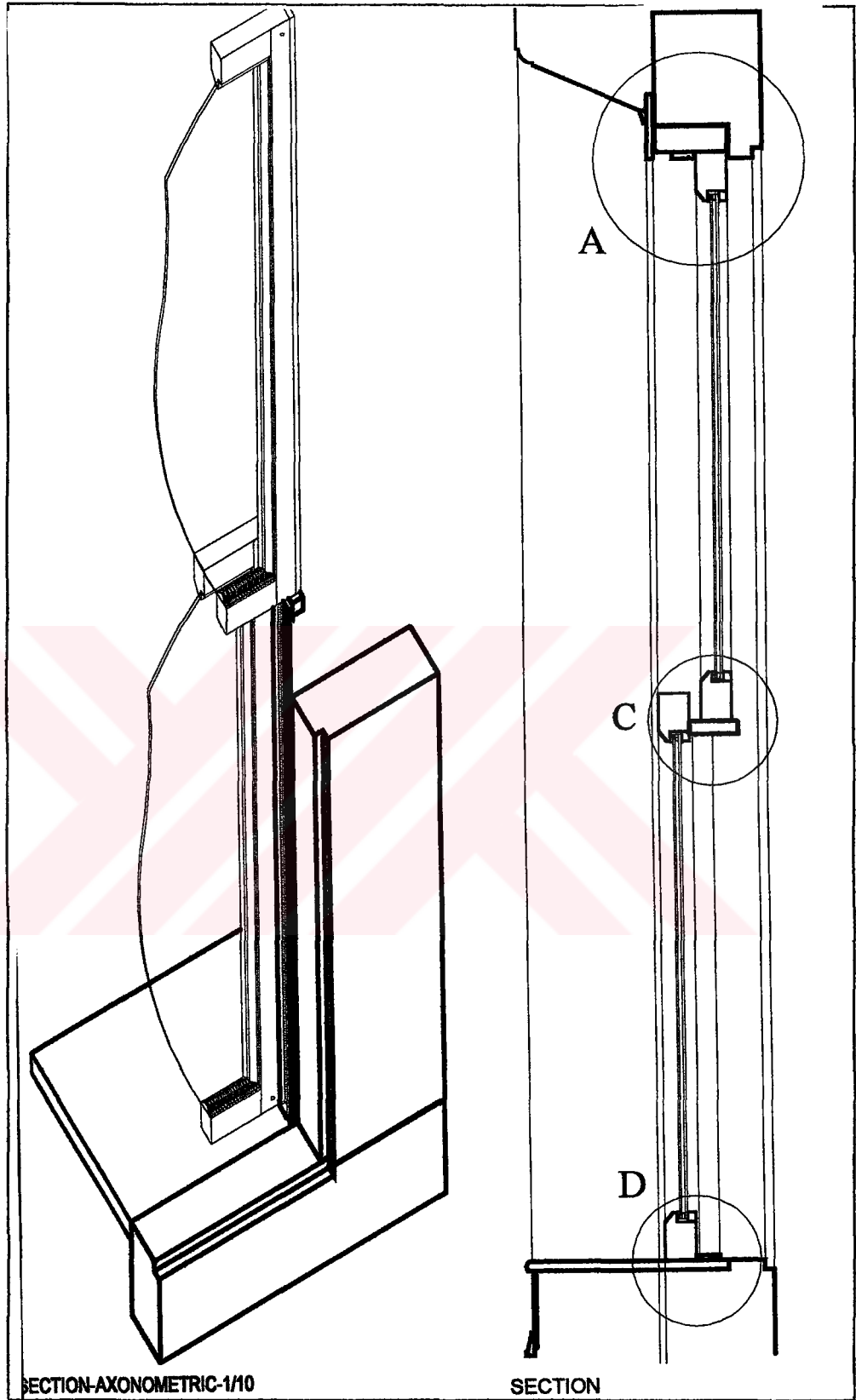


Figure 5.2.54 W03A Section and 3D Drawing

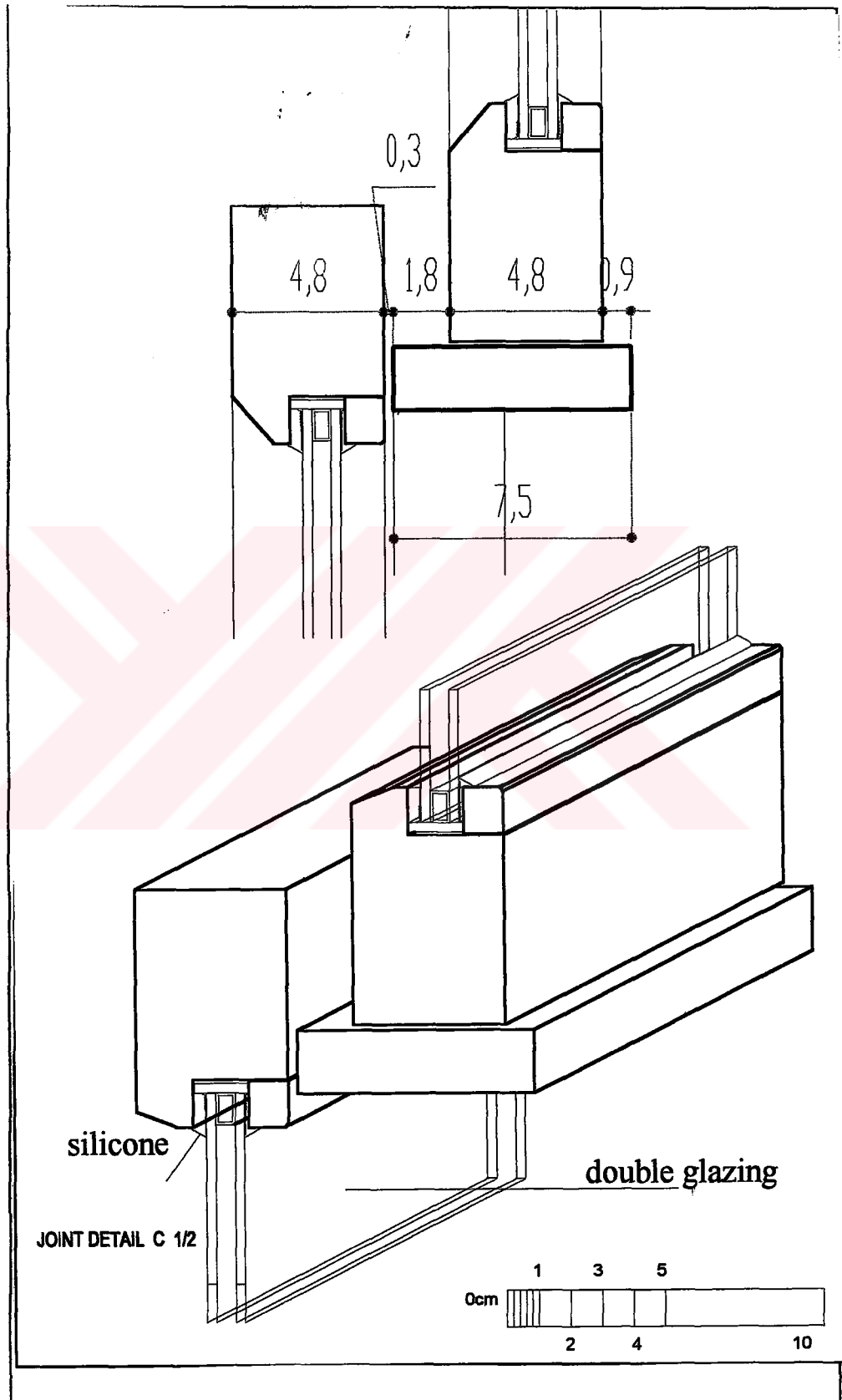
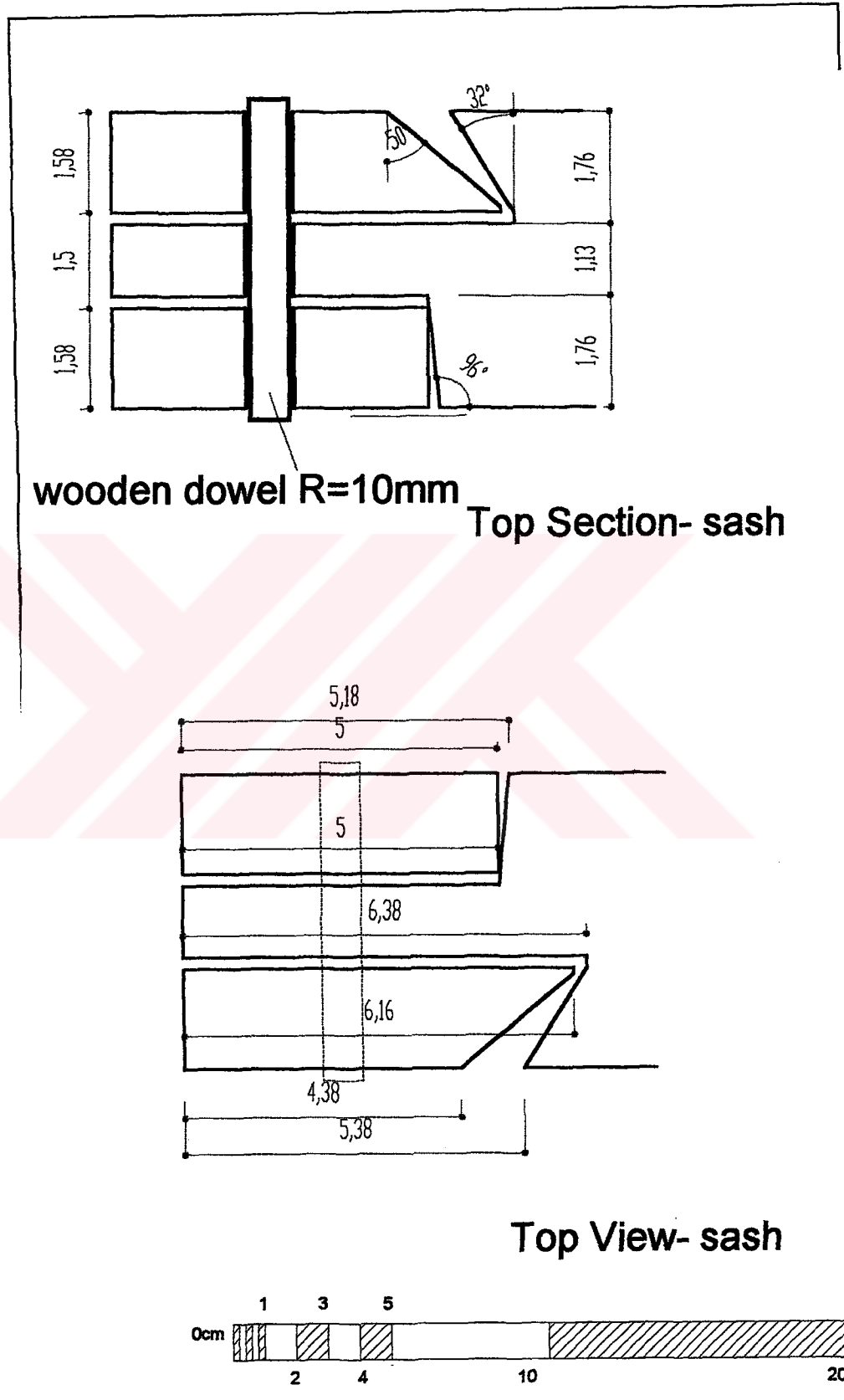


Figure 5.2.55 W03A Details



wooden dowel R=10mm

Top Section- sash

Top View- sash

Figure 5.2.56 W03A Details

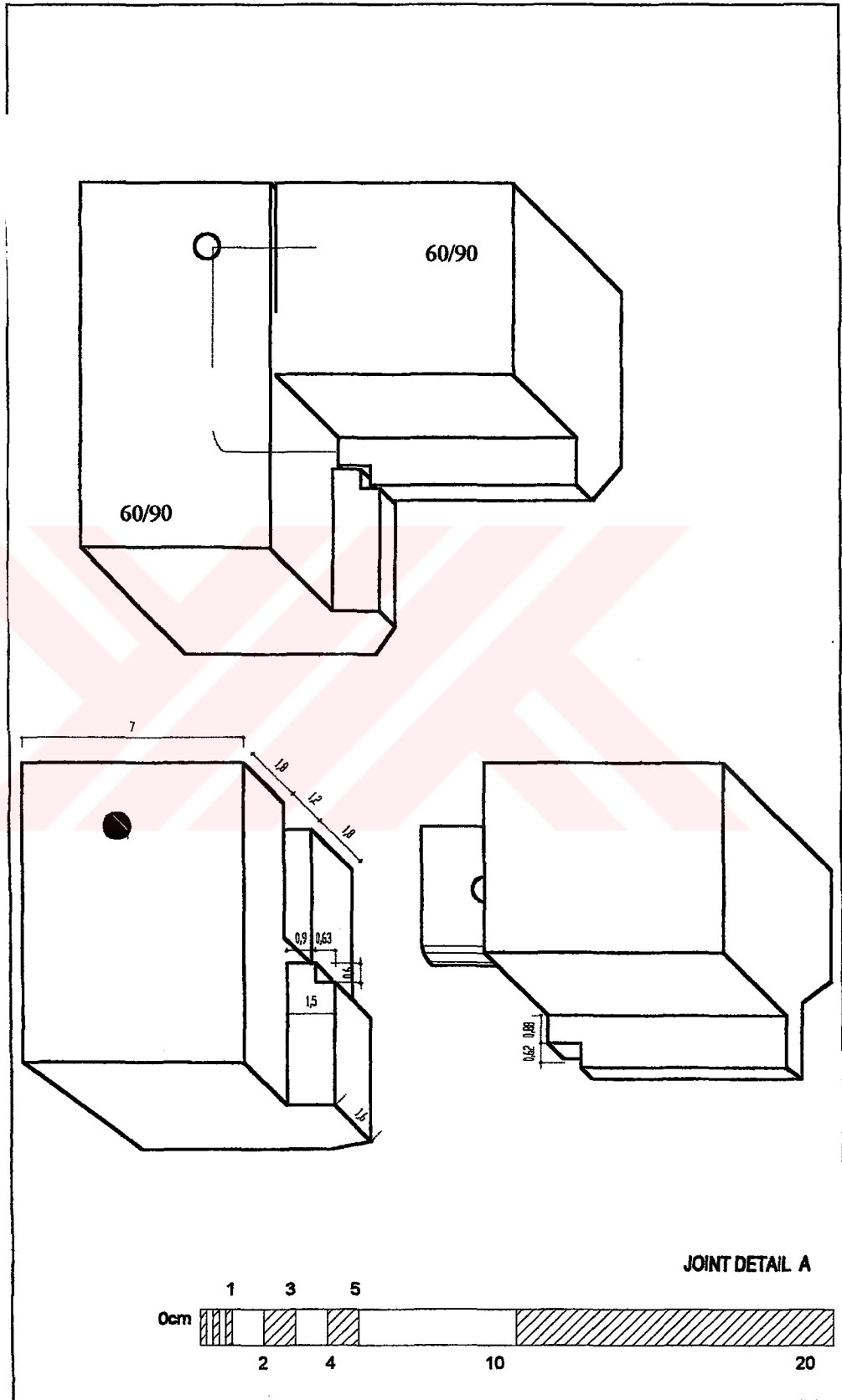


Figure 5.2.57 W03A Details

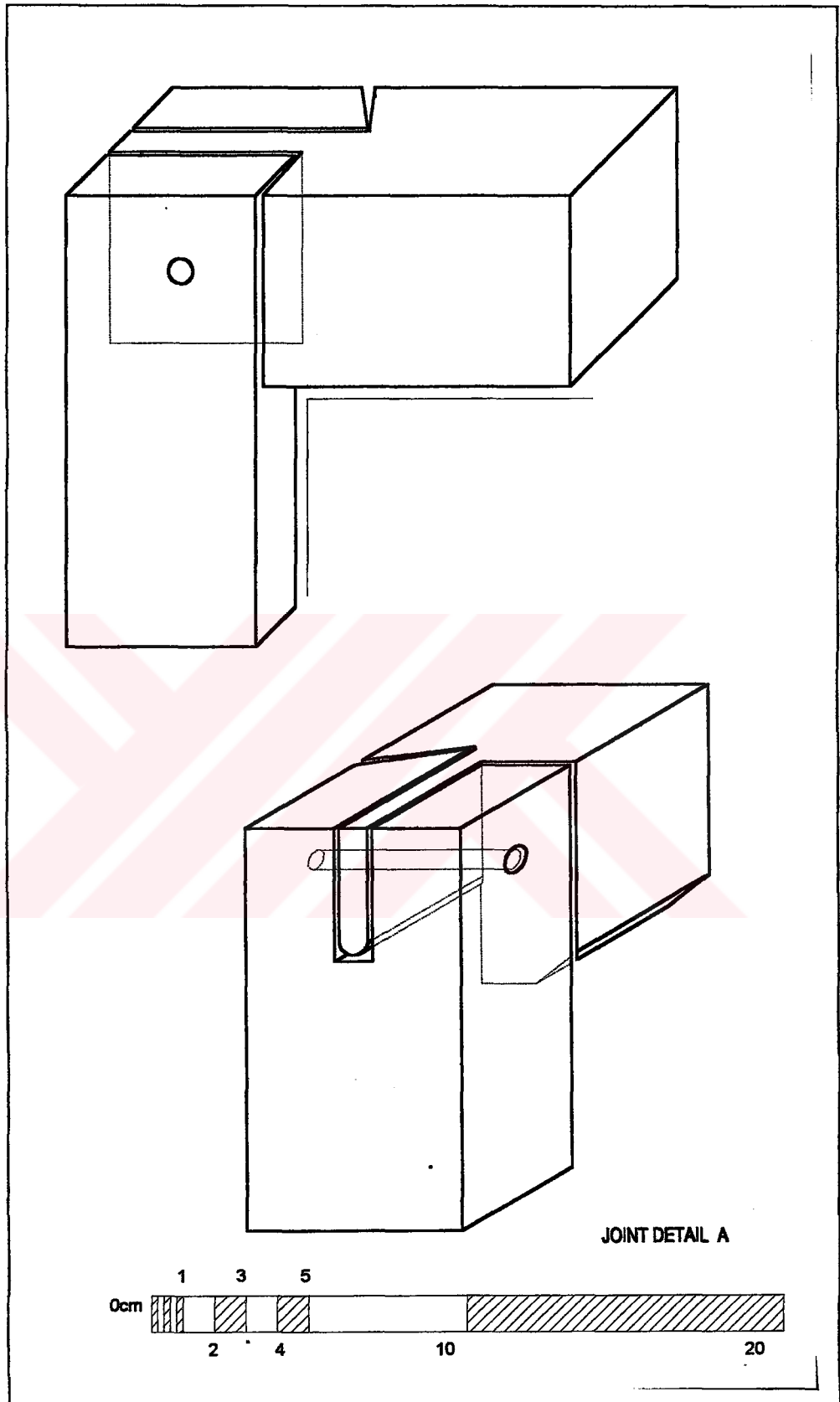


Figure 5.2.58 W03A Details

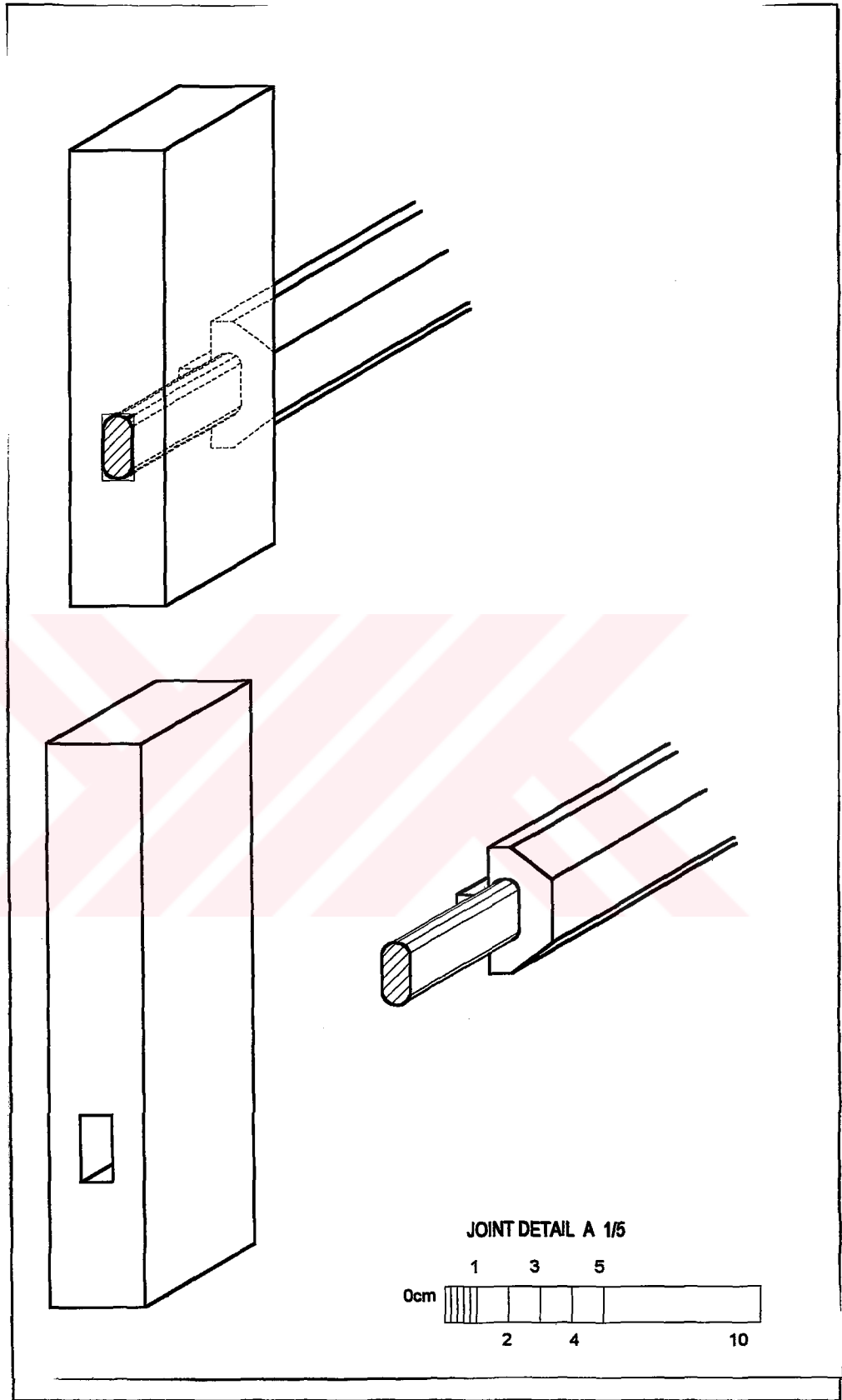


Figure 5.2.59 W03A Details



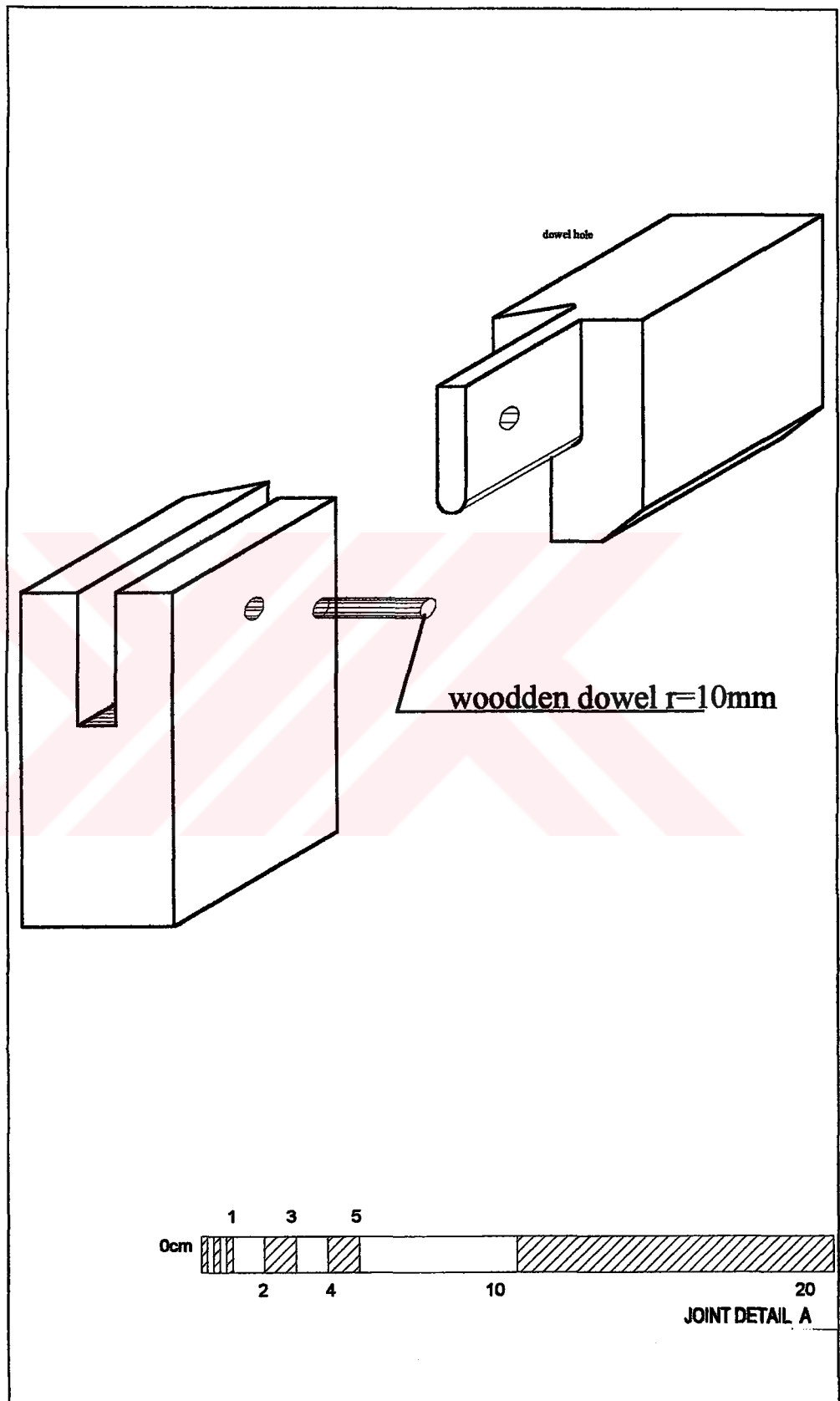


Figure 5.2.60 W03A Details

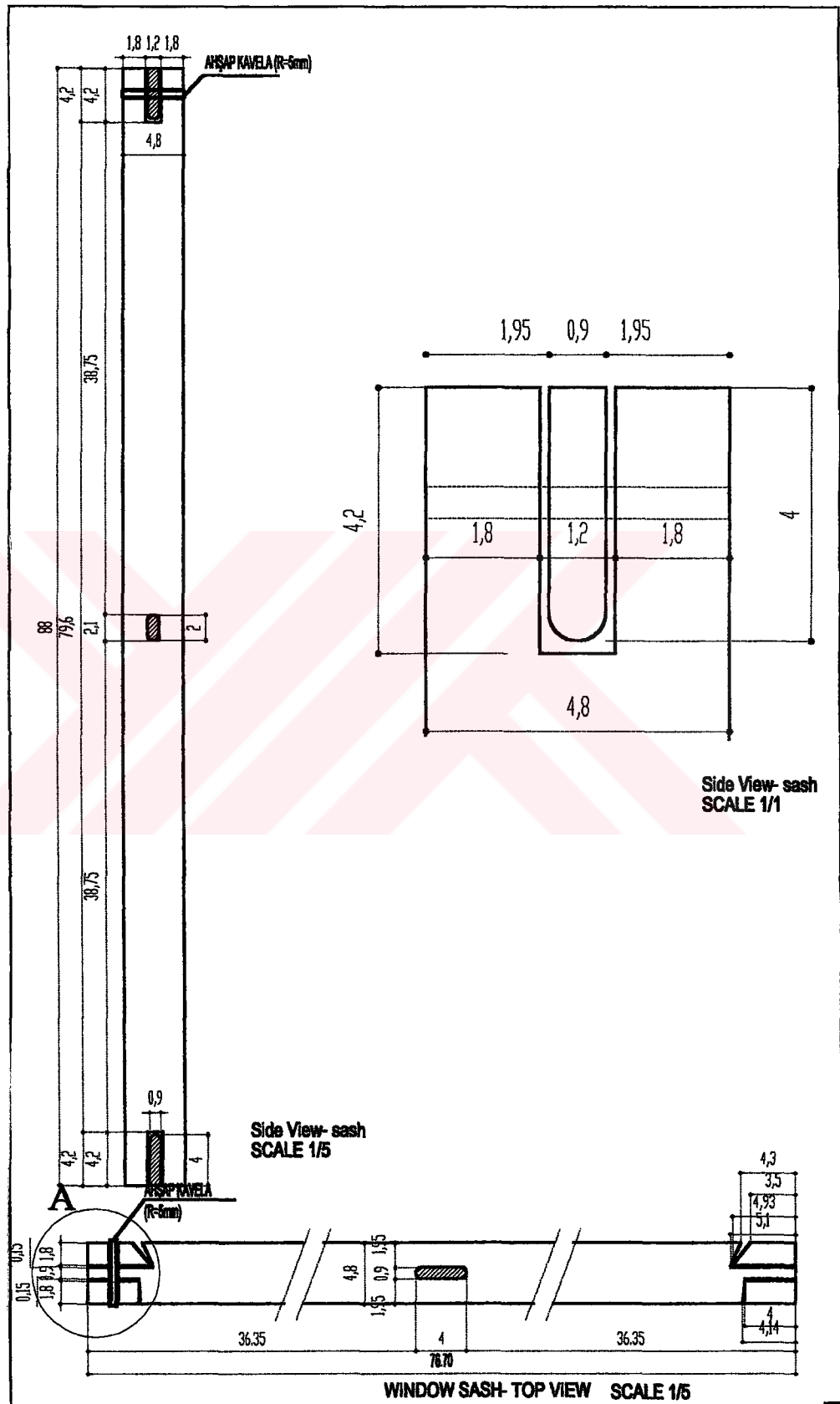


Figure 5.2.61 W03A Details

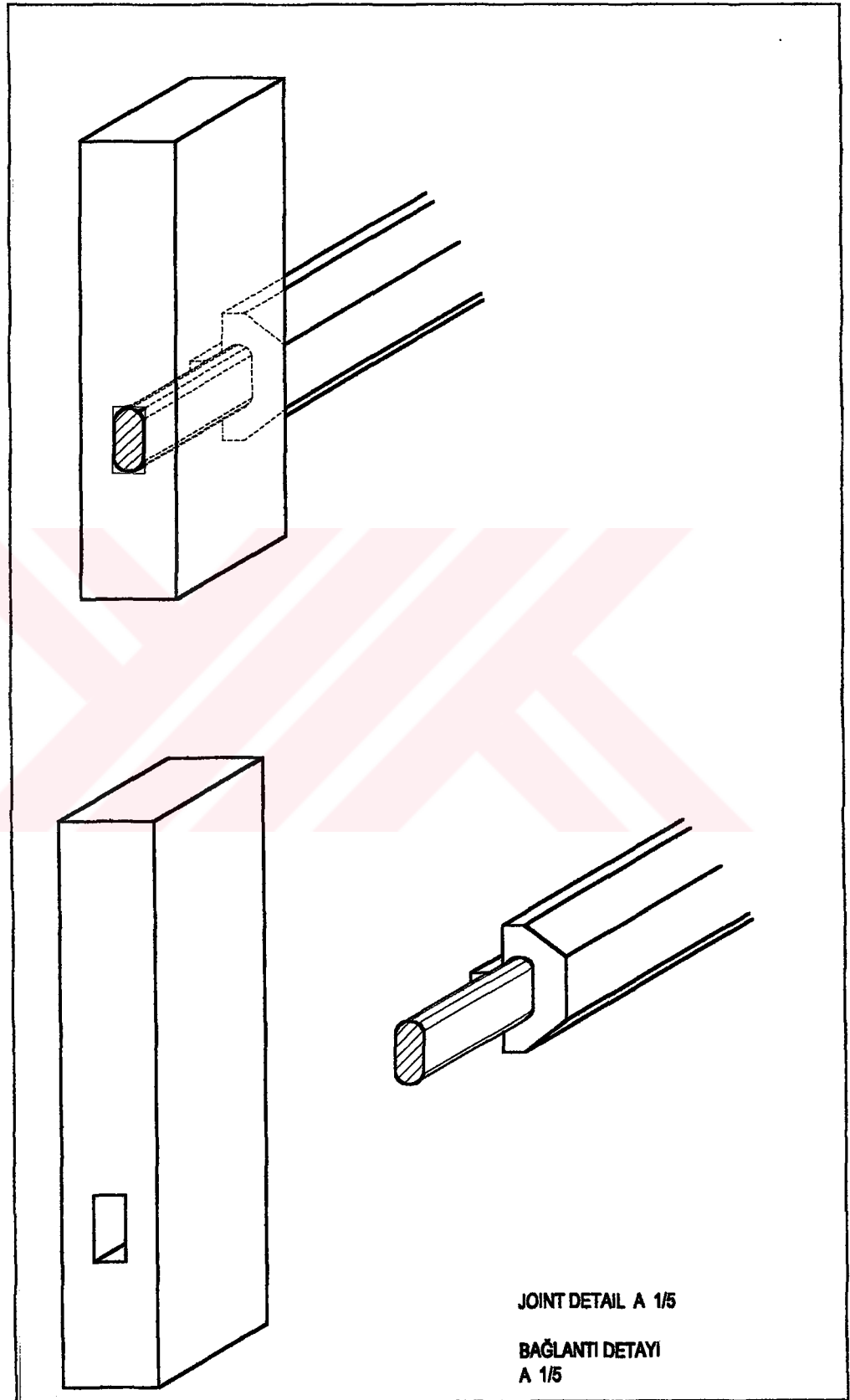


Figure 5.2.62 W03A Details

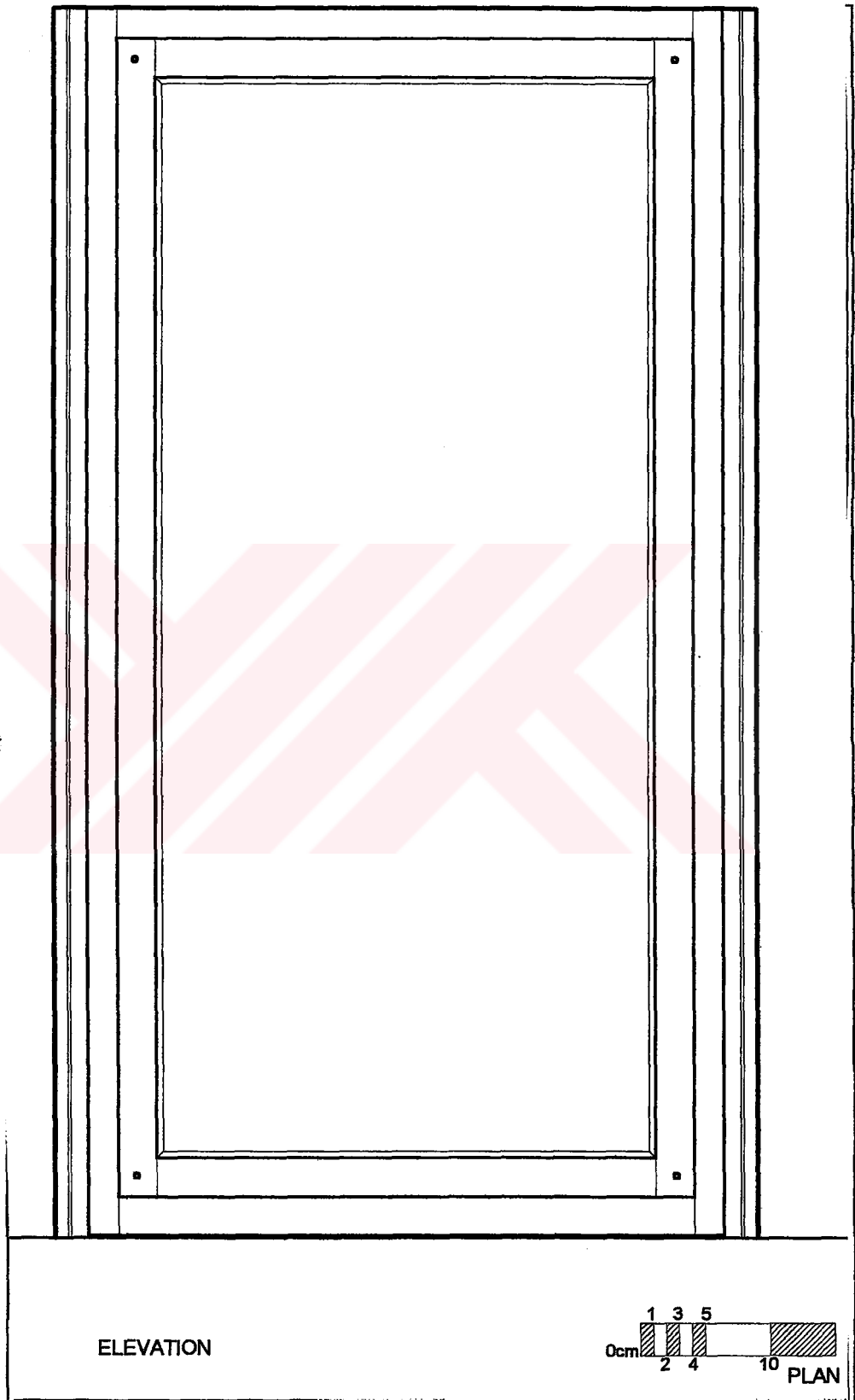


Figure 5.2.63 Windbreak Proposal - Elevation



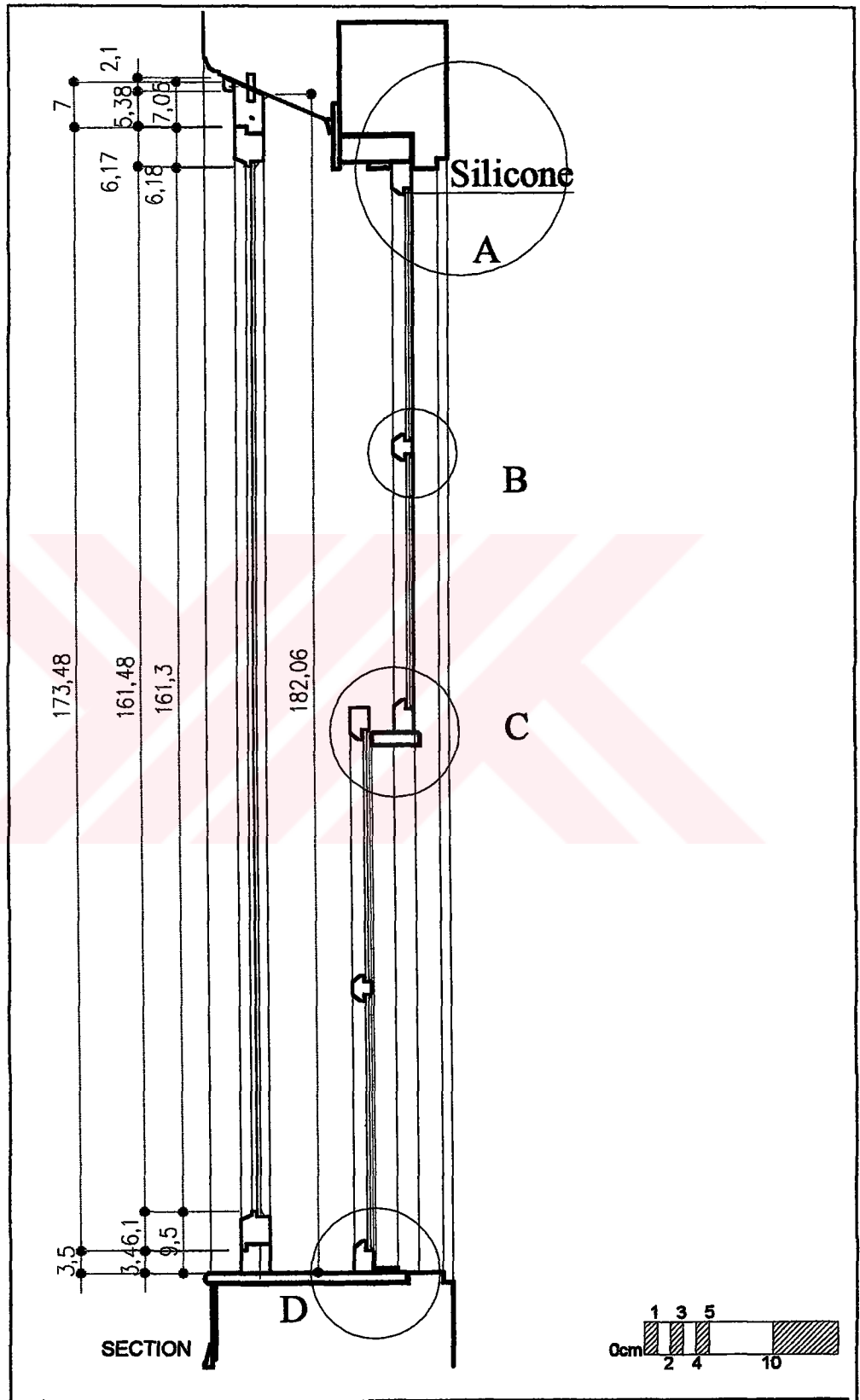


Figure 5.2.65 Windbreak Proposal -- Section

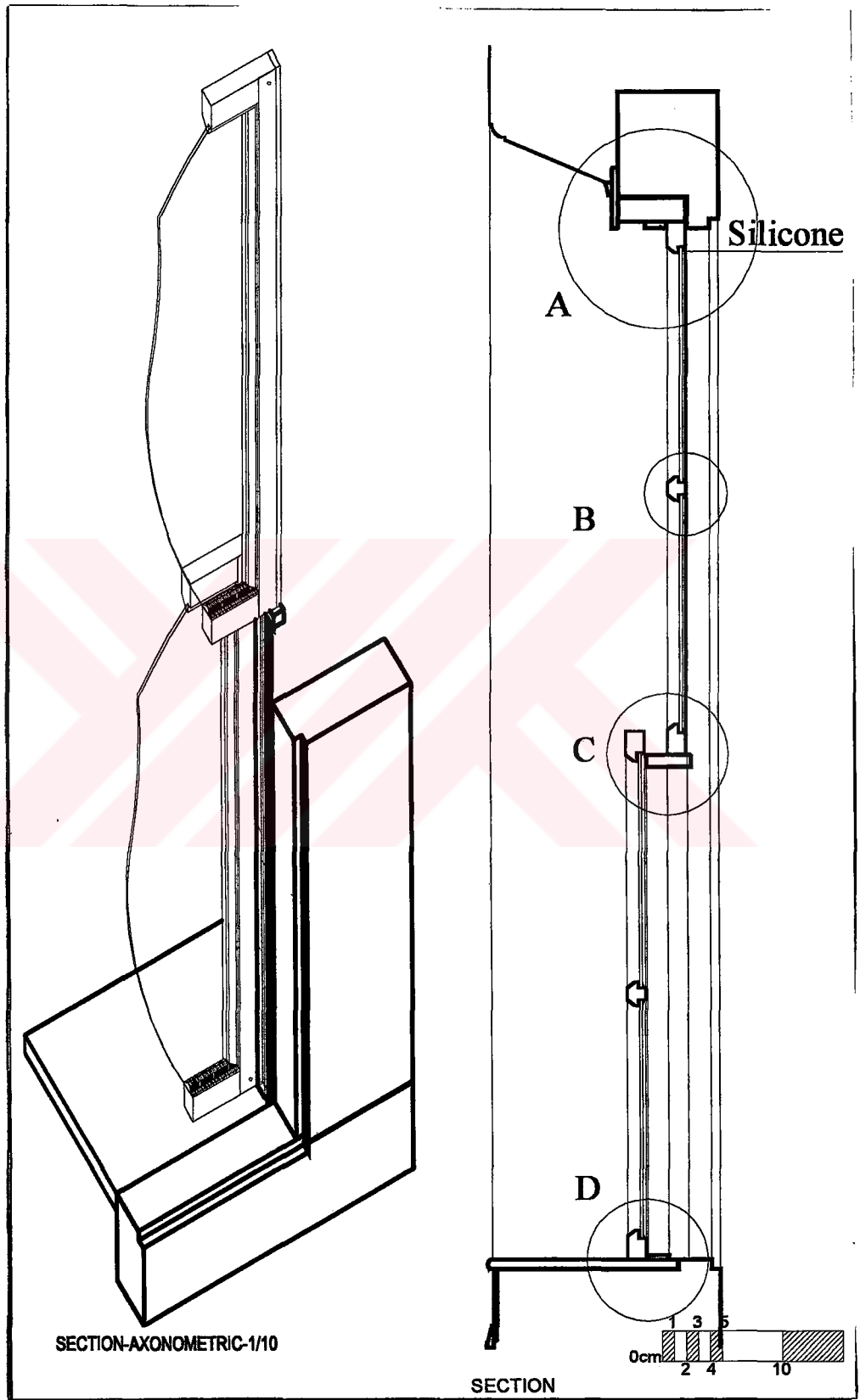


Figure 5.2.66 Windbreak Proposal - Details

#### 5.2.4.2 Shutters

In this section, solutions for the problems listed above will be given. In cases, where the problem exceeds the limits of this handbook, the user will be guided on what to do and whom to ask. In addition, possible solutions will be suggested to educate the user on what to ask for from the experts that he will contact.

Secondly, detailed description of the shutters that are included in the typology chart will be given. Solution proposals on how to replace the missing parts, how to handle air circulation problems will be given. This section will be supported by detailed drawings of the original shutter and of the suggested modifications on it.

##### Type SW01

This is a very rare type. It has registers. It has four sections. The whole shutter has two wings. The upper section of the wings is stable within themselves. Only their registers are moveable. The lower sections of the wings have wings within themselves. The can be opened separately from the main wings. They two have moveable registers. The movement is achieved through a timber bar fixed to them. There is no drawing for this type. The only two buildings that this type observed could not be surveyed. The buildings that it is seen are; Merkez Caddesi no:9, İzmir Caddesi no:60. (Figure 5.1.14) Check drawings for further information (Figure 5.2.67-5.2.70)

##### Type SW02

This is a very rare type. It has four sections. The whole shutter has two wings. The upper section of the wings is stable within themselves. The lower sections of the wings have wings within themselves. The can be opened



separately from the main wings. There is no drawing for this type. The only two buildings that this type observed could not be surveyed. The buildings that it is seen are; İzmir Caddesi no:2, no:47 (Figure 5.1.15) Check drawings for further information (Figure 5.2.67-5.2.70)

### Type SW03

This is a very simple type of shutter. It consists of two sub groups. Grouping is done according to the number of the "kuşluk" they have. They were constructed simply by bringing together timber of around 8 to 10 cm together. They are attached to the "kuşluk" by an iron bar of around 2 cm thick. SW03A is connected to the wall by two kuşluk. The buildings that it is seen are Şirin Sokağı no:33, Sahil Caddesi no:81, Kaptan Sokağı no:7, Bayraktar Sokağı no:16, no:42, İzmir Caddesi no:55, and Gezener Sokağı no:9. SW03B is connected to the wall by three kuşluk. The buildings that it is seen are; İzmir Caddesi no:47, no:54, Benel Sokağı no:31. Check drawings for further information (Figure 5.2.67-5.2.70)

### Type SW04

This is a very simple type of shutter. It is the most common type seen in the area. It consists of two sub groups. Grouping is done according to the number of the "kuşluk" they have. They were constructed simply by bringing together timber of around 8 to 10 cm together. There is a timberen section of around 4\*20 cm nailed onto the timber horizontally. The iron bar to connect the shutter to the kuşluk is nailed onto this timberen element. SW04A is connected to the wall by two kuşluk. The buildings that it is seen are; Sahil Caddesi no:21, no:69, no:77, no:93 no:173, Kahveci Sokağı no:23, Ziya Garip Sokağı no:5 no:8, no:10, İzmir Caddesi no:4, no:15, no:47, no:52, no:83, no:94, no:96, no:100, Girne Caddesi no:46, Atay Sokağı no:1, Yıldız Sokağı no:9, Benel Sokağı no:12, no:21, no:25 no:27, Hacı Mehmet Sokağı no:9, Bayraktar Sokağı no:6, Bayraktar Sokağı no:6, no:21, Hilmi Varol

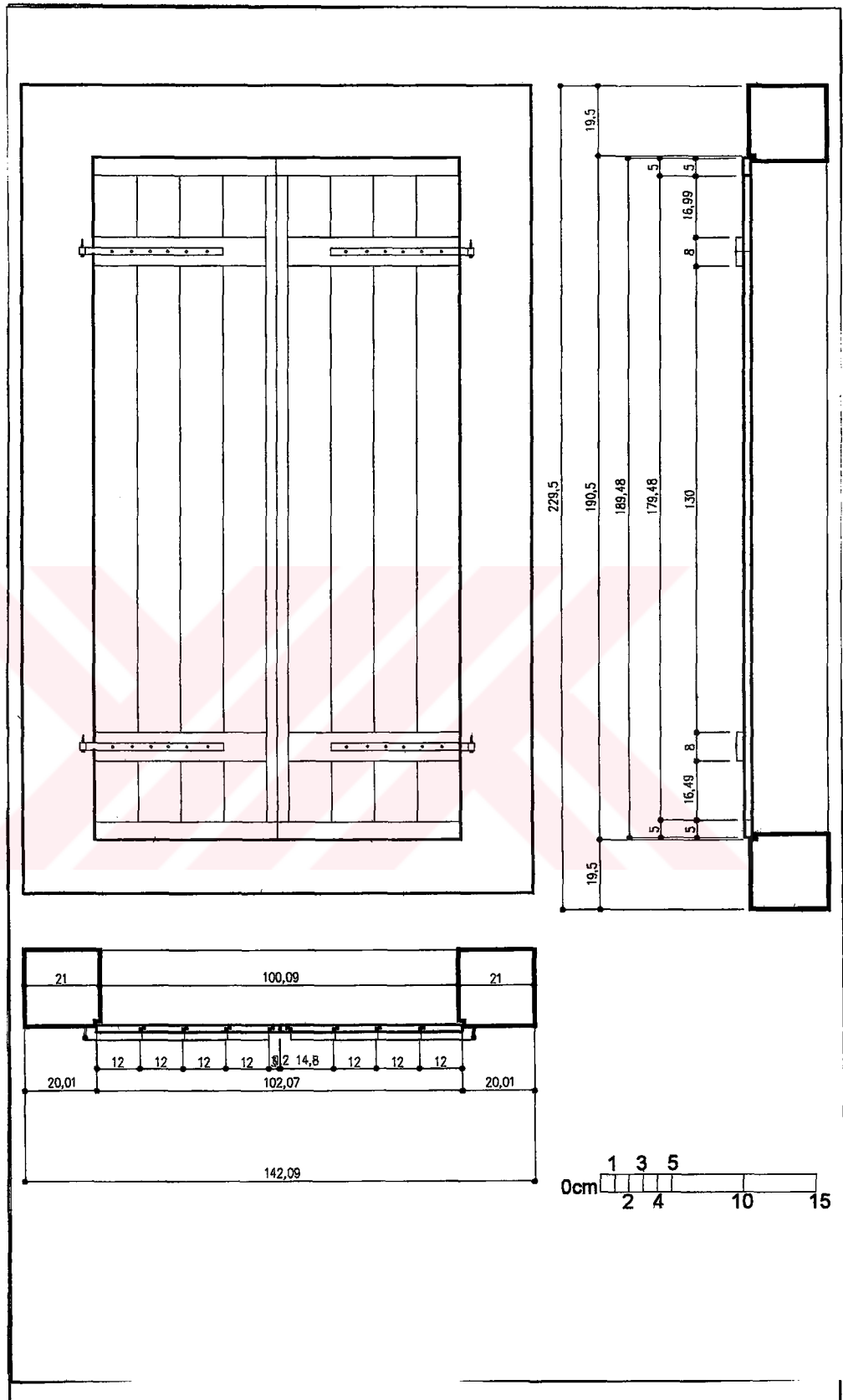


Figure 5.2.67 SW03 Elevation, Section and Plan

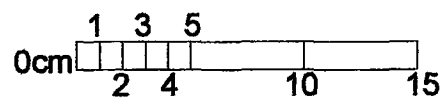
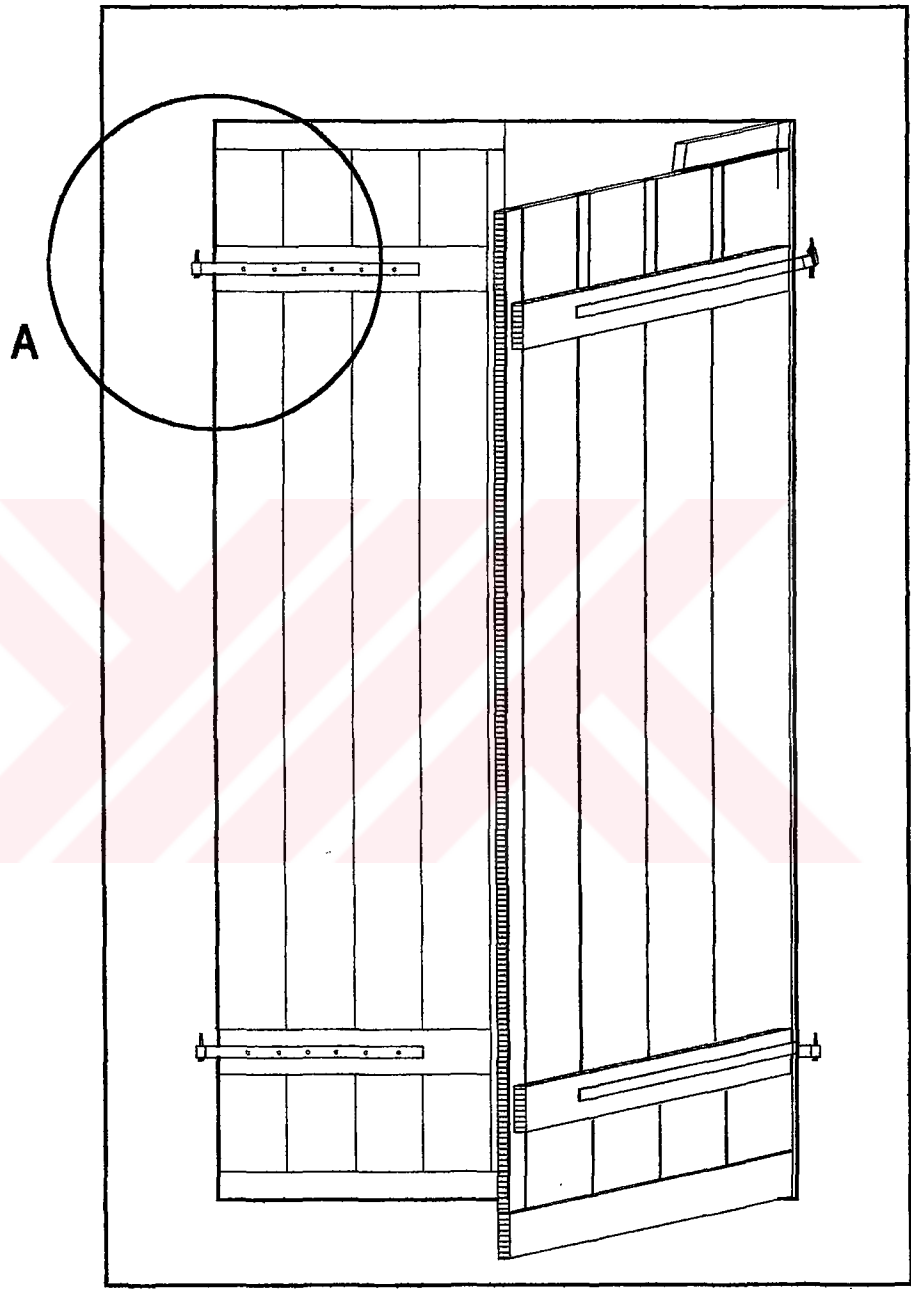


Figure 5.2.68 SW03 3D Drawing

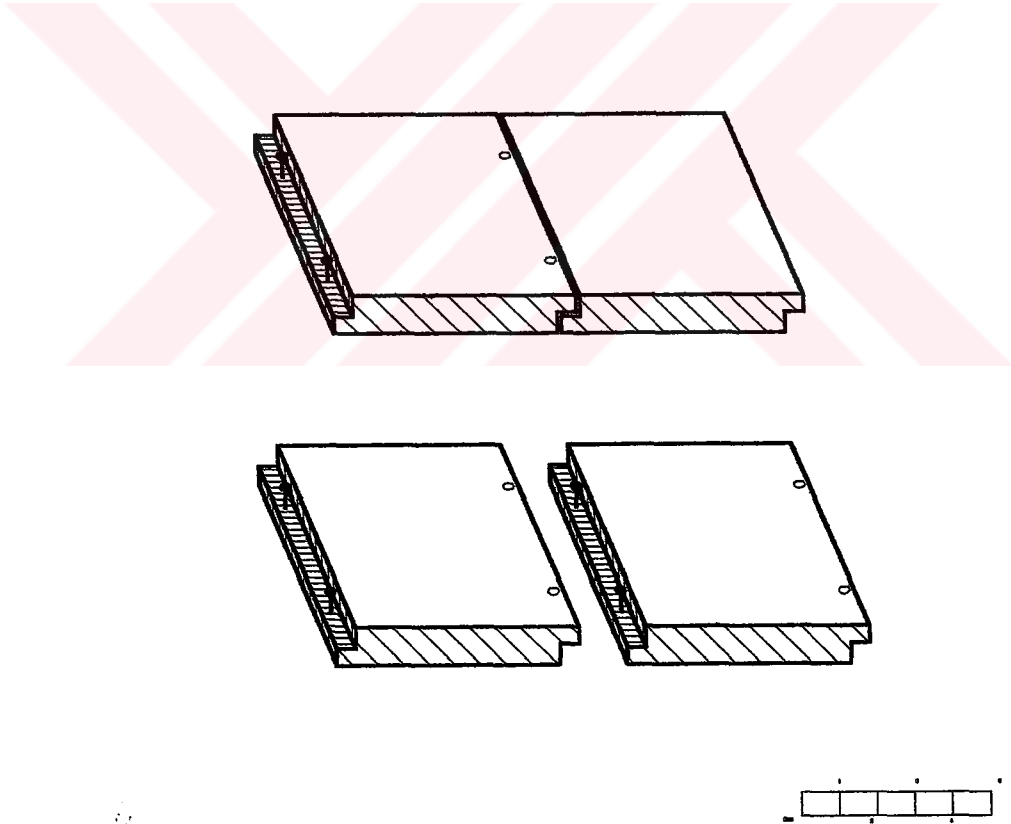
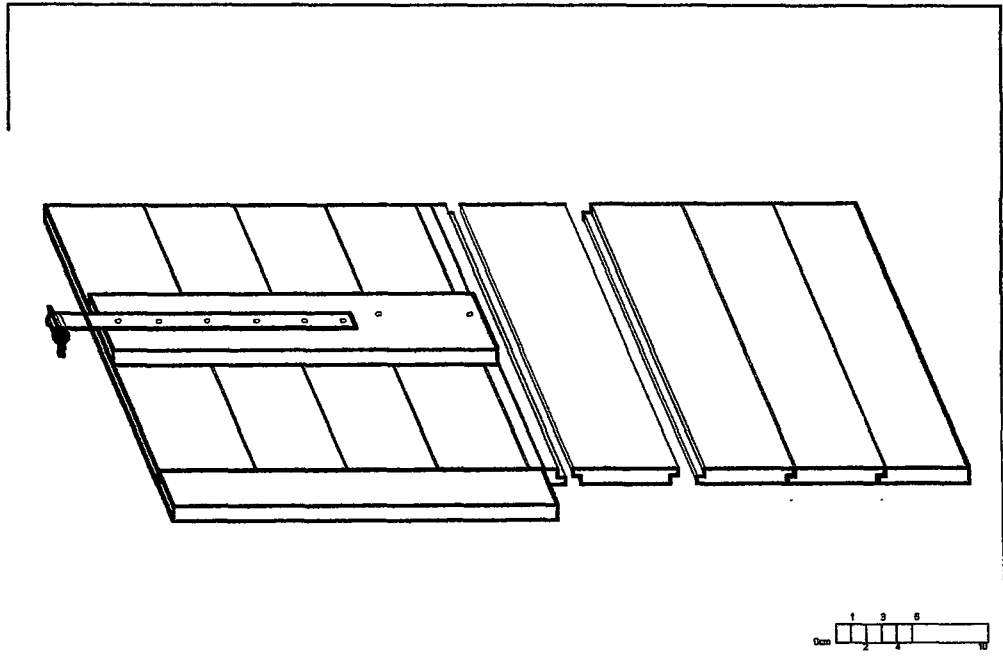


Figure 5.2.69 SW03 Details

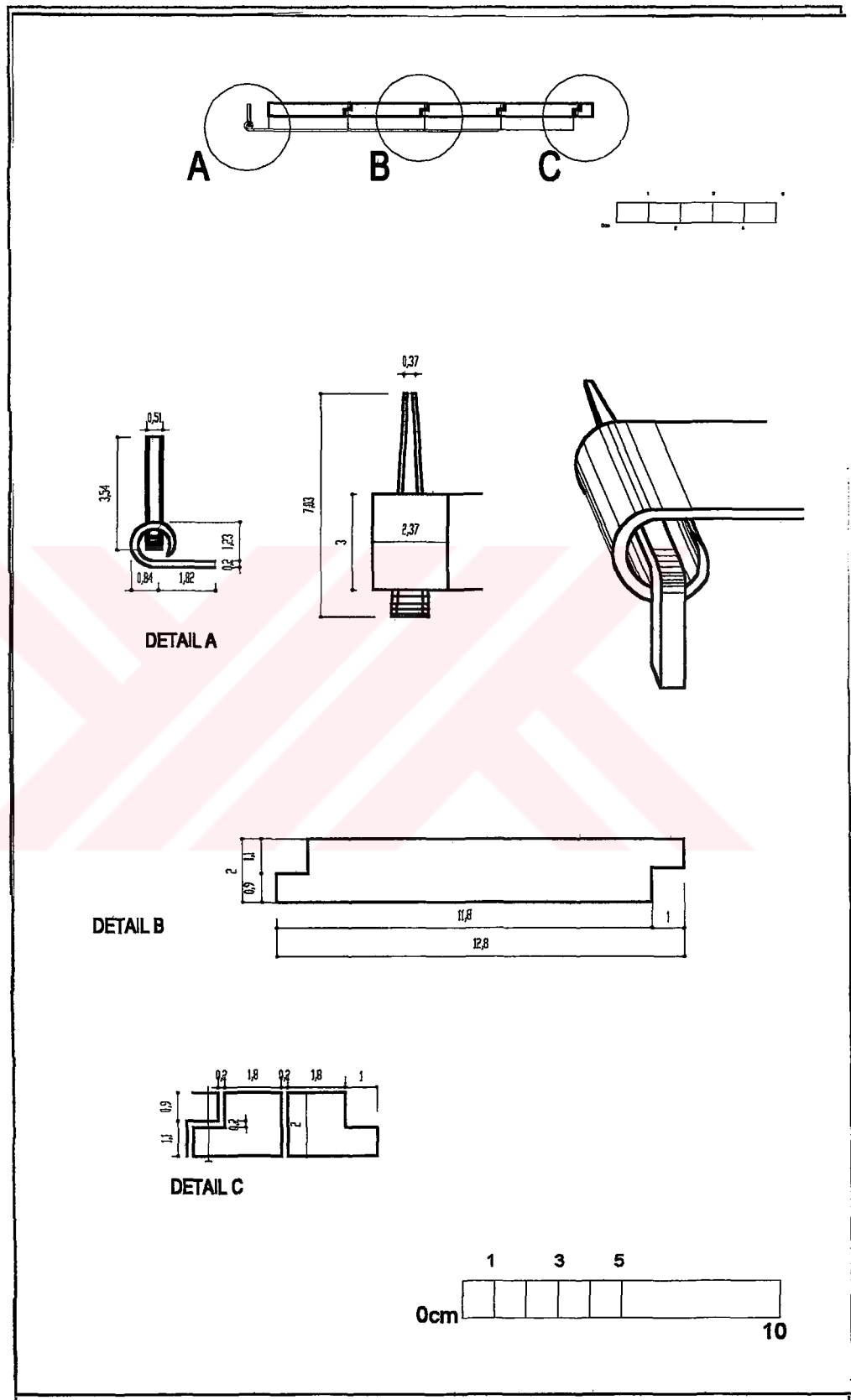


Figure 5.2.70 SW03 Details

Sokađı no:13, Orkun Sokađı no:18, Karagöz Sokađı no:15, Soylu Sokađı no:25. SW04B is connected to the wall by three kuşluk. The buildings that it is seen are; Küçükkaya Sokađı no: 9, Karagöz Sokađı no: 17, no: 21, Çınar Sokađı no: 46, Girne Caddesi no: 27. Check drawings for further information (Figure 5.2.67-5.2.70)

### Type SW05

This type is seen in shop windows. They have the same details as SW04. It has three subgroups. The division is made according to their shapes. Swo5A is made for arched openings. It is seen in Şirin Sokađı no:8. SW05B is squarish. It is seen in Şirin Sokađı no:33. SW05C goes until the street level. Its details differ from the others. It has a more complicated design. It is used to cover a storage door. It is seen in İzmir Caddesi no:54. (Figure 5.1.16) Check drawings for further information (Figure 5.2.67-5.2.70)

### SW06

This is a very rare type of shutter. Its details are like those of SW02 in general, yet, its wings have no divisions and there are no secondary wings within them. The buildings that it is seen are Hacı Mehmet Sokađı no:24 and Gezener Sokađı no:9. Check drawings for further information (Figure 5.2.67-5.2.70)

Metal shutters have the same details. Their classification is made according to the number of wings and their divisions. They have two different wall connection types. Both of these can be seen in any type of shutter. In one, the kuşluk is connected directly onto the stone lintel. This is called wall connection type 2. In the second type, there is an iron bar of 3 cm attached to the lintel and the kuşluk is attached onto this element.

## Type SM01

This type has only one wing of two square divisions. It is seen in Benel Sokađı no:25. Check drawings for further information (Figure 5.2.71-5.2.79)

## Type SM02

This shutter consists of two wings each divided into two. Check drawings for further information (Figure 5.2.71-5.2.79)

SM02A has two elongated sections and it is seen in normal floor windows. The buildings that it is seen are; Benel Sokađı no: 1, no:11, akas Sokađı c, and İzmır Caddesi no:40. (Figure 5.1.11)

SM02B is seen in basement windows. In many cases it is connected to the wall from interior as in these windows, there is no window frame originally. It is seen in İzmır Caddesi no:50, Benel Sokađı no:13, and Bodulgan Sokađı no:17.

SM02C differs from SM02A only by the Baklava shaped ornamentation on the inner side of the wings. It is seen in Karagöz Sokađı no:13.

SM02D differs from SM02A only by the arched top section. It is made to fit in arched lintels. The buildings it is seen are; Karagöz Caddesi no:22, No:26, Kurtuluş Caddesi no:31, no:33

### Type SM03

This shutter consists of two wings each divided into three. Check drawings for further information (Figure 5.2.71-5.2.79)

SM03A has three equal sections. It is seen in Merkez Caddesi no:36, no:42, Karagöz Sokağı no:11, İzmir Caddesi no:38, Benel Sokağı no:15, Hacı Mehmet Sokağı no:12, Pınar Sokağı no:31, Fevzi Çakmak Caddesi no:31, Günışığı Sokağı no:2, Kurtuluş Caddesi no 31, no:33. (Figure 5.1.12)

SM03B has a narrow band in the middle of two equal sections. It is seen in İzmir Caddesi no 40 and no:60.

SM03C has an arched top section. It is seen in Kaptan Sokağı no:1, Pınar Sokağı no:31, Kurtuluş Caddesi no:31, no:33, and Sahil Caddesi no:73.

### SM03D

This shutter is seen in shop windows. Its each wing consists of two moveable sections; where each section again is divided into three.

### Type SM04

This shutter consists of two wings each divided into four. Check drawings for further information (Figure 5.2.71-5.2.79)

SM04A has two wings It seen in Benel Sokağı no11, no:25, İzmir Caddesi no:22, no:24, no:36, no:38, no:40, no:58, Karagöz Caddesi no11, no:20, no:24, Lonca Çarşısı Caddesi no:28, Hacı Mehmet Sokağı no:10, no:12, Günışığı no:2 (Figure 5.1.13)



SM04B has two wings. It is seen in shop windows. One wing has one moveable part and the other has two moveable parts. It is seen in İzmir Caddesi no 38, no: 58, Hacı Mehmet Sokağı no: 10, no: 12, no: 14, and Merkez Caddesi no: 29 (Figure 5.1.17)

SM04C1 has two wings. It is seen in shop windows. One wing has two and the other wing has three moveable parts. It is seen in Merkez Caddesi no: 37, no: 39, no: 41, and Hacı Mehmet Sokağı no: 7.

SM04C2 is again seen in shop windows. It has two wings each having two moveable parts. It is seen in İzmir Caddesi no: 42. (Figure 5.1.18)

#### Type SM05

This shutter consists of two wings each divided into five.

SM05A has five equal divisions. It is seen in Karagöz Sokağı no:11. SM05B has a narrow band in the middle and the other divisions are of equal height. It is seen in İzmir Caddesi no:60. Check drawings for further information (Figure 5.2.71-5.2.79)



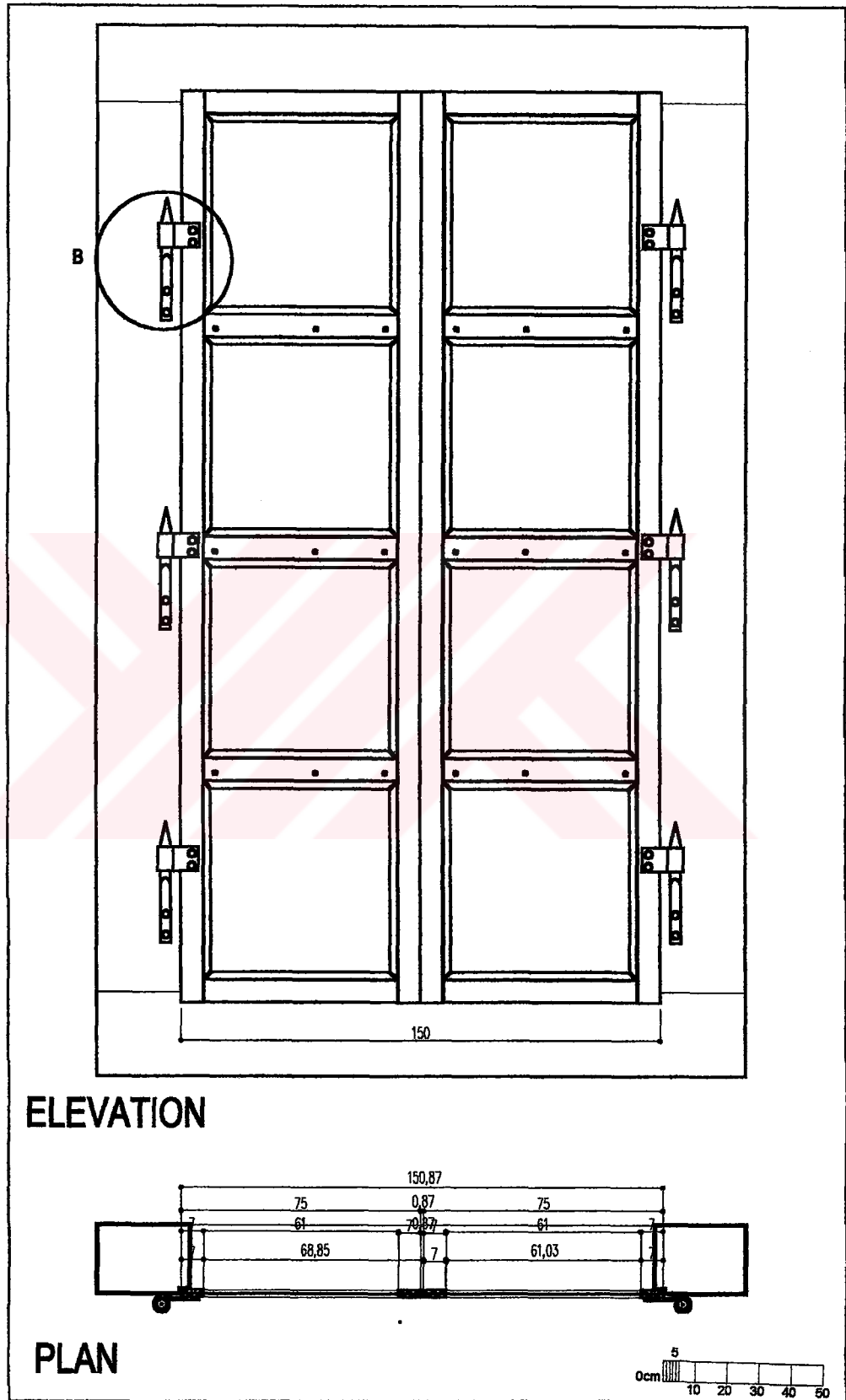
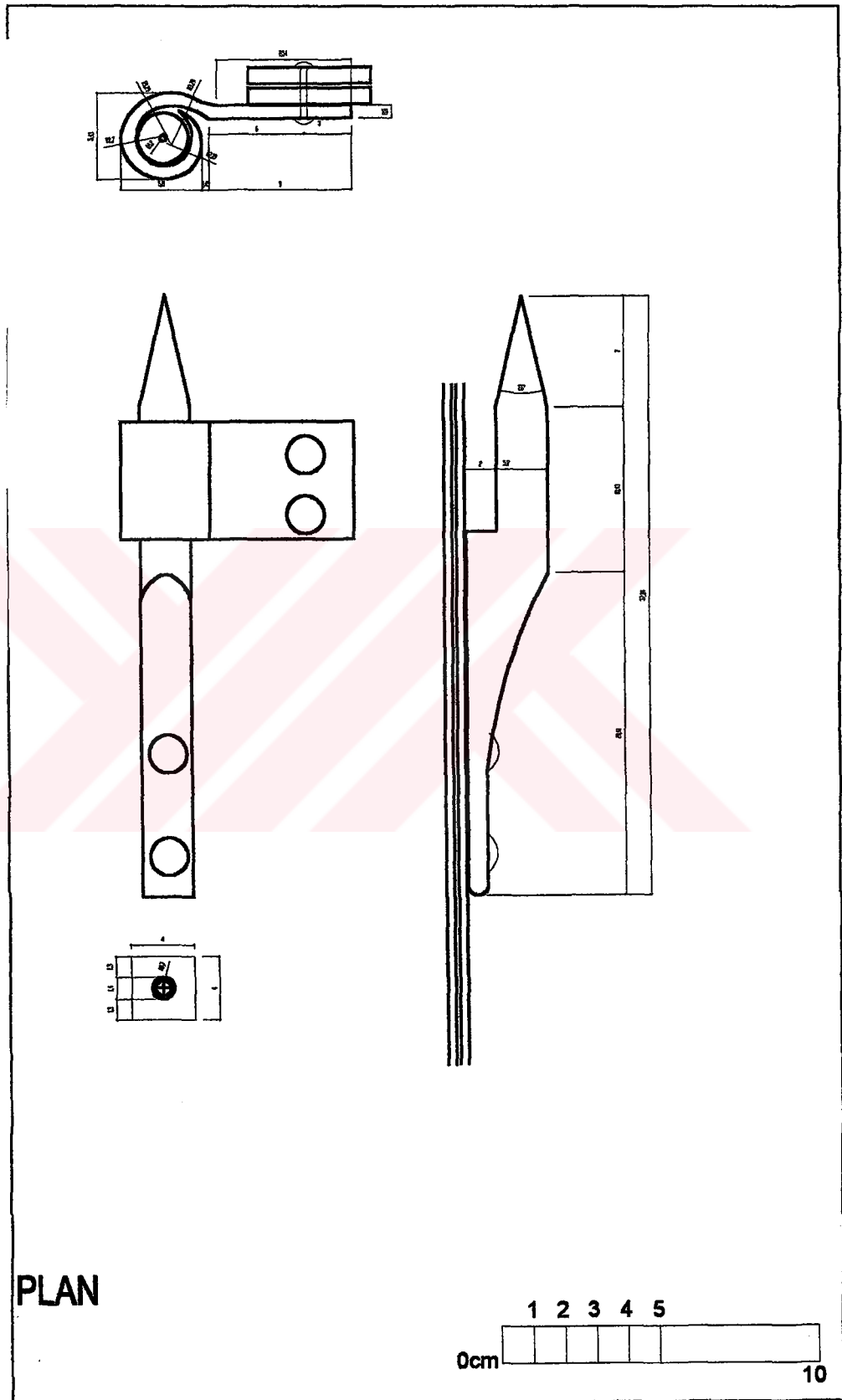


Figure 5.2.72 SM05 Exterior Elevation and Plan



PLAN

Figure 5.2.73 SM05 Details

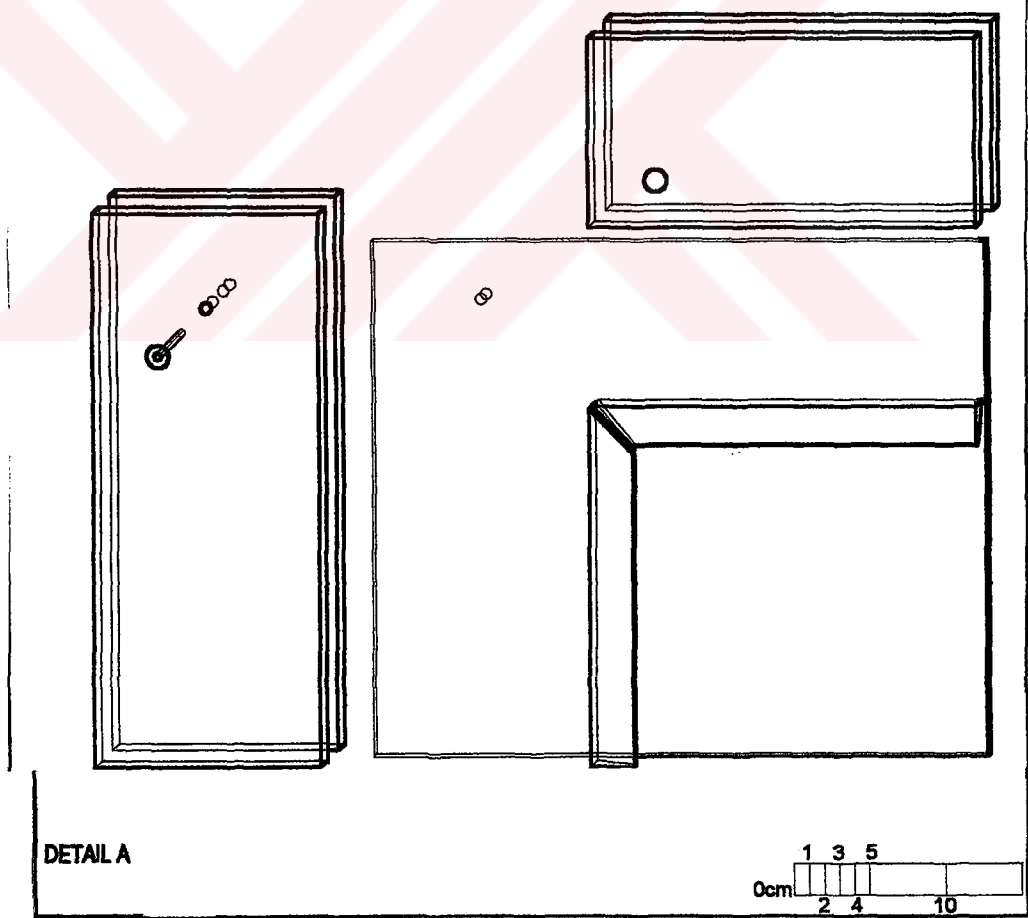
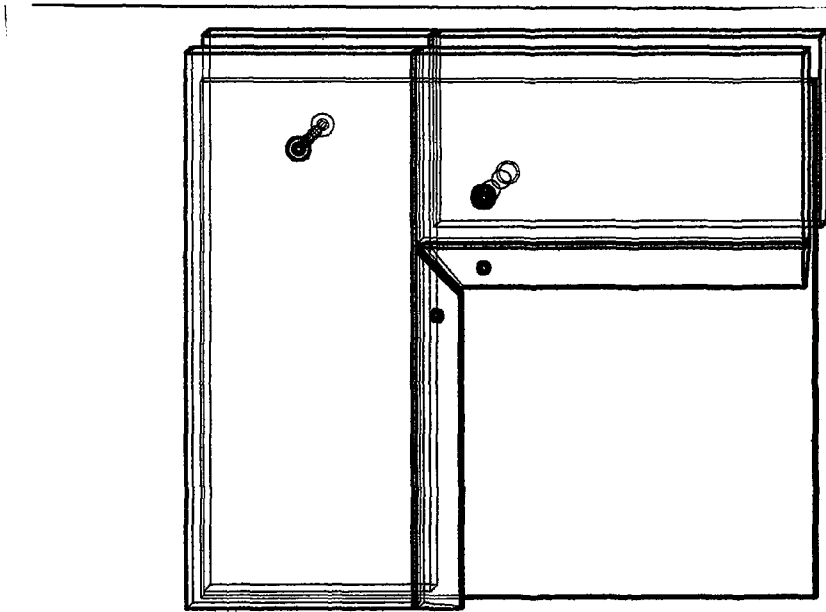


Figure 5.2.74 SM05 Details

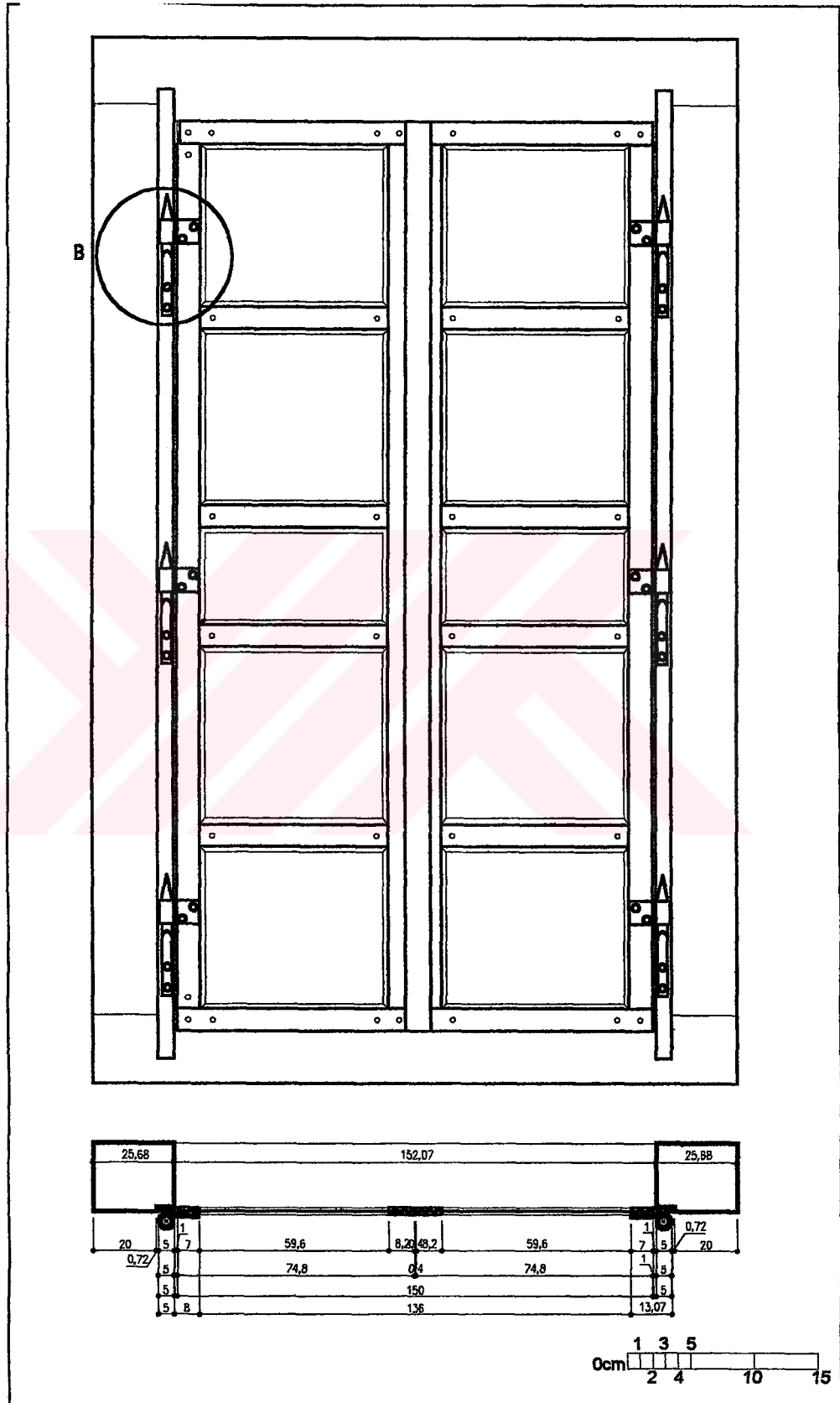


Figure 5.2.75 SM05 Exterior Elevation and Plan

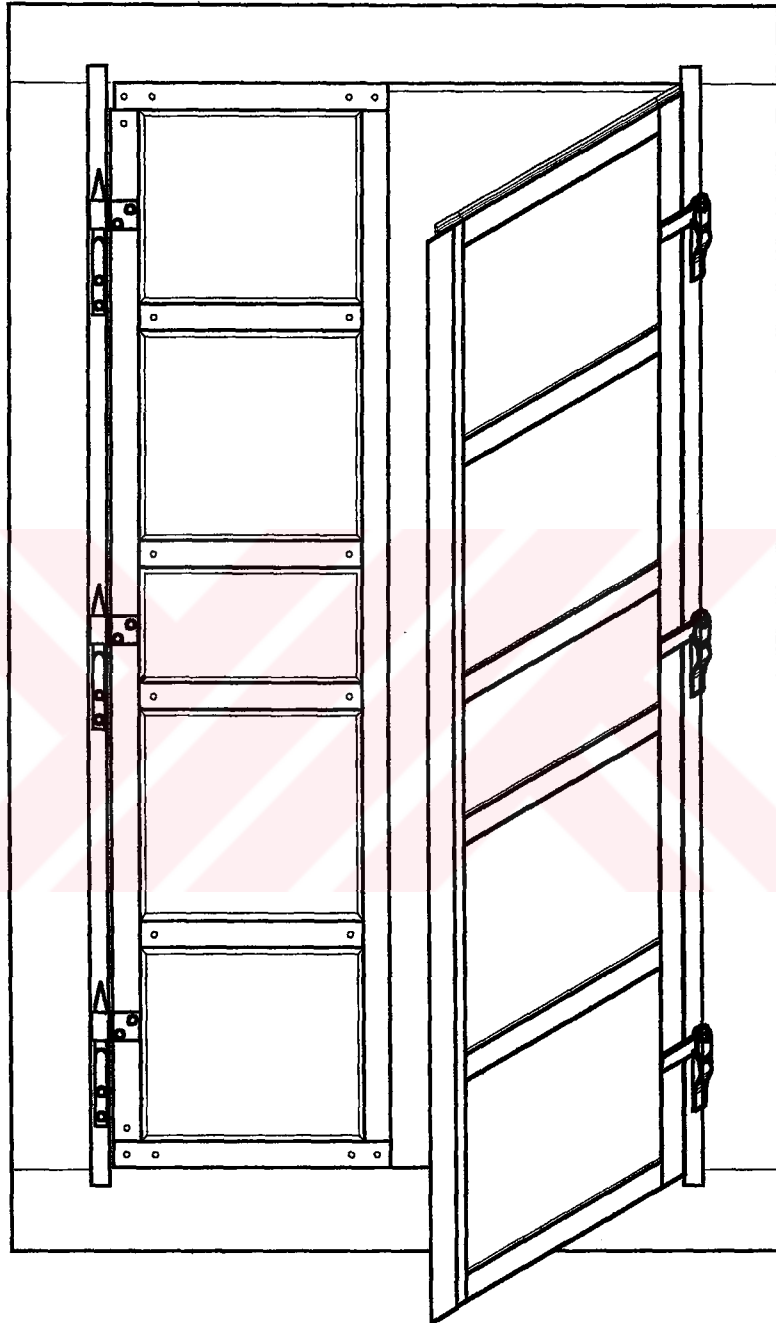


Figure 5.2.76 SM05 3D Drawing

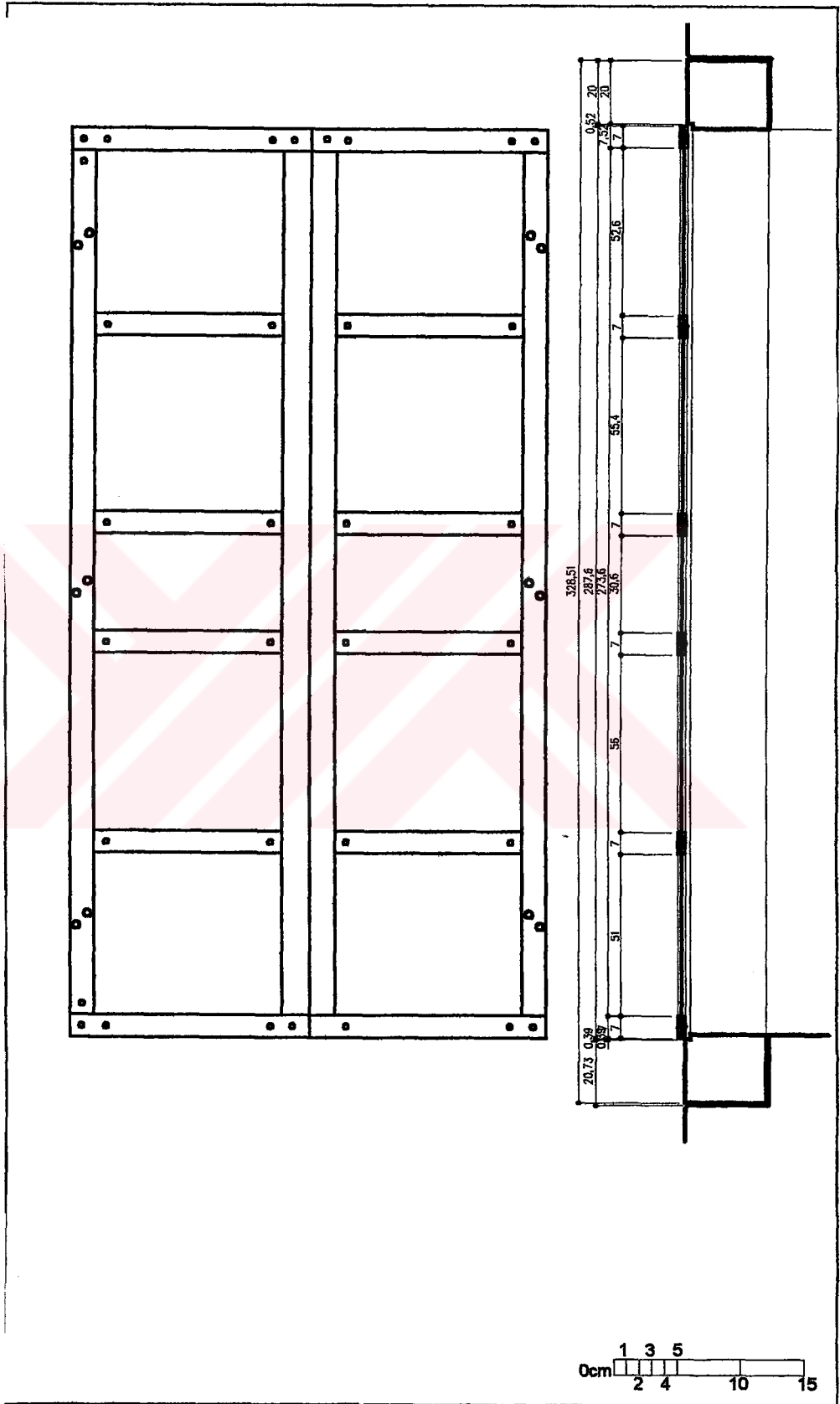


Figure 5.2.77 SM05 Interior Elevation and Section



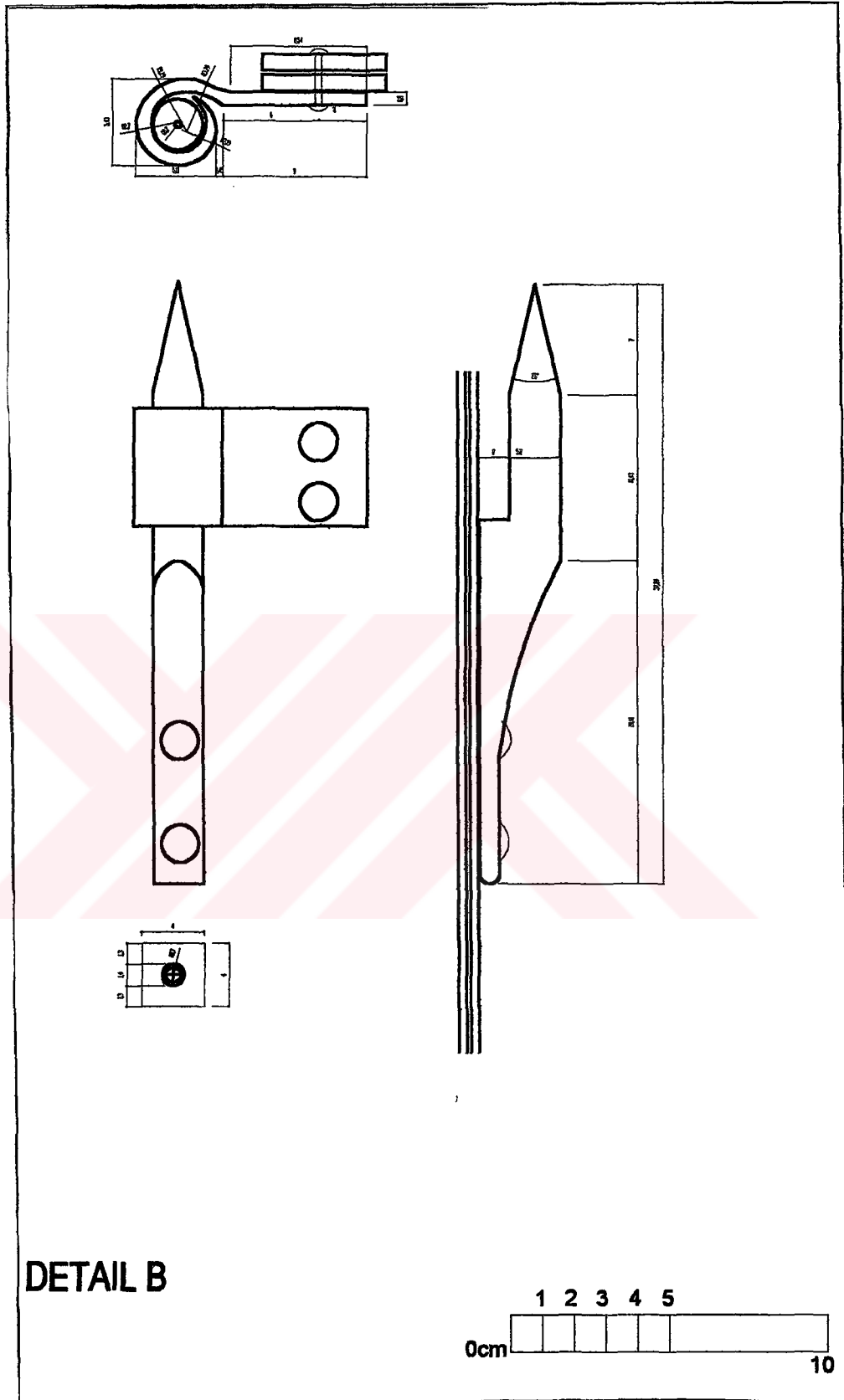


Figure 5.2.78 SM05 Details

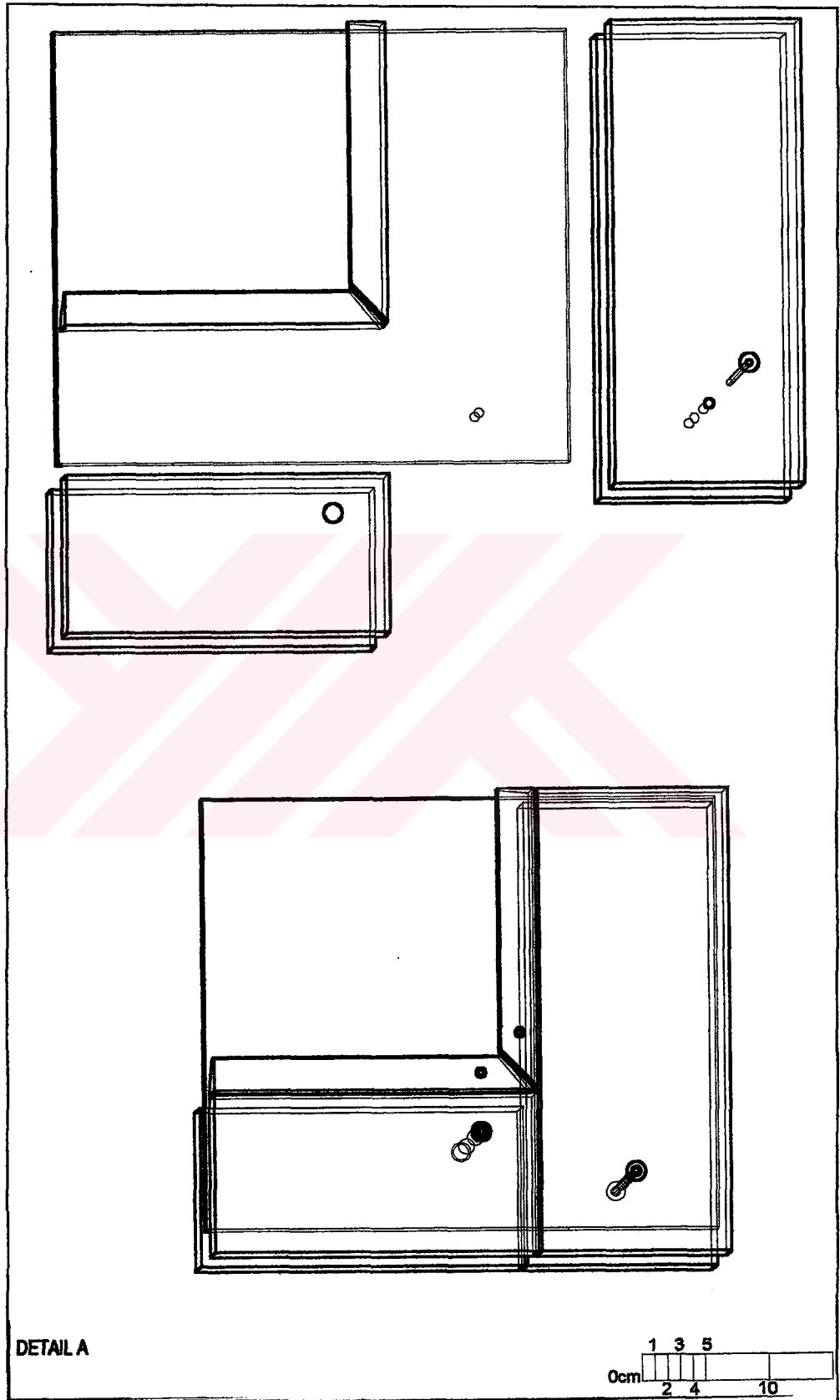


Figure 5.2.79 SM05 Details

### 5.2.4.3 Doors

In this section, solutions for the problems listed above will be given. In cases, where the problem exceeds the limits of this handbook, the user will be guided on what to do and whom to ask. In addition, possible solutions will be suggested to educate the user on what to ask for from the experts that he will contact.

Secondly, detailed description of the doors that are included in the typology chart is given. Solution proposals on how to replace the missing parts, how to handle air circulation problems are be given. This section is supported by detailed drawings of the original door and of the suggested modifications on it.

#### Type DW01

This type is the most frequent type in the studied area. It is seen in 64 buildings. Most of these are service buildings, storage doors, and secondary doors. It is seen in Çınar Sokağı No: 2A, 28, 42, 44, 46, 28, Bayraktar Sokağı No:11, 13, 15, 23, 4, 6, 8, 10, 12, 16, 26, 28, 34, 42, Bodulgan Sokağı No:25, 27, Soylu Sokağı No:26, Kahveci Sokağı No:3,, 13, 22, Girne Sokağı No:1,3, İzmir Caddesi No:96, Fevzi Çakmak Caddesi No:79, Hilmi Varol Sokağı No:9, 5.Sokak No:2, 4, Gezener Sokağı No:29, Çakas Sokağı No:23, 25, 27, Şirin Sokağı No:8, 33. It is the simplest type of door in the area. It has no divisions, panels or such. Figure 5.1.27) Check drawings for further information (Figure 5.2.80-5.2.83)

## Type DW02

This type is mainly has a similar construction technique to that of Type DW01. The main difference is that, there are two wings in this type. Also, its craftsmanship is better when compared to the previous door type. It has two variations. DW02A is a plain two-winged door, while DW02B has two large square wholes on each wing. This is only seen in İzmir Caddesi No:56. Other type is seen in; İzmir Caddesi No:41, 43, 45, 47, Karagöz Sokağı No:13, Bodulgan Sokağı No:7, 13, 25, 27, 29. (Figure 5.1.26) Check drawings for further information (Figure 5.2.80-5.2.83)

## Type DW03

This is a very rare type. It is two-winged and panelled. It has two variations. DW03A is seen in Yıldız Sokağı No:9, Ziya Garip Caddesi No:9, Merkez Caddesi No:9. It has two unsymmetrical panels on each wing. Panels have Ornamentation. DM03B is seen in Ziya Garip Sokağı No:5 only. It has three unsymmetrical grooved panels on each wing. Check drawings for further information (Figure 5.2-80-5.2.83)

## Type DW04

This type is more ornamented when compared to the other timbered doors in the area. It has an iron railing on the side facing outside and an iron shutter on the side facing inside. In some cases this iron shutter was altered to a moveable glazing. It has three variations according to the panels underneath the opening. DW04A1 is seen in İzmir Caddesi No:52, Sahil Caddesi No:79 and 81. There is a single panel underneath the opening. This is sometimes has ornamented panels. Second type, DW04A2, is seen only in Hacı Mehmet Sokağı No: 9. It has two panels underneath the opening. Figure 5.1.28) Check drawings for further information (Figure 5.2-84-5.2.99).

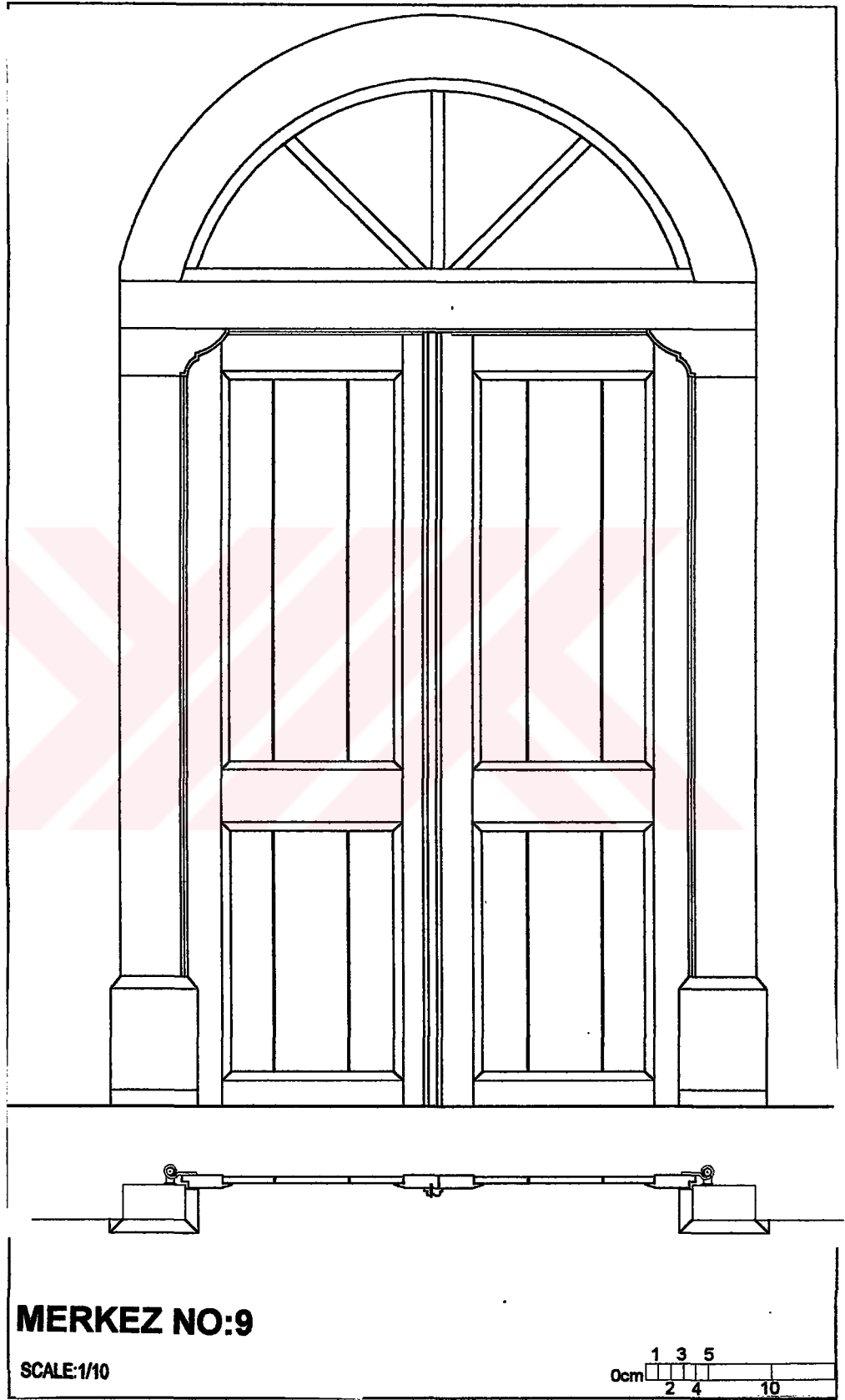


Figure 5.2.80 DW03 Merkez Caddesi No:9 Exterior Elevation and Plan

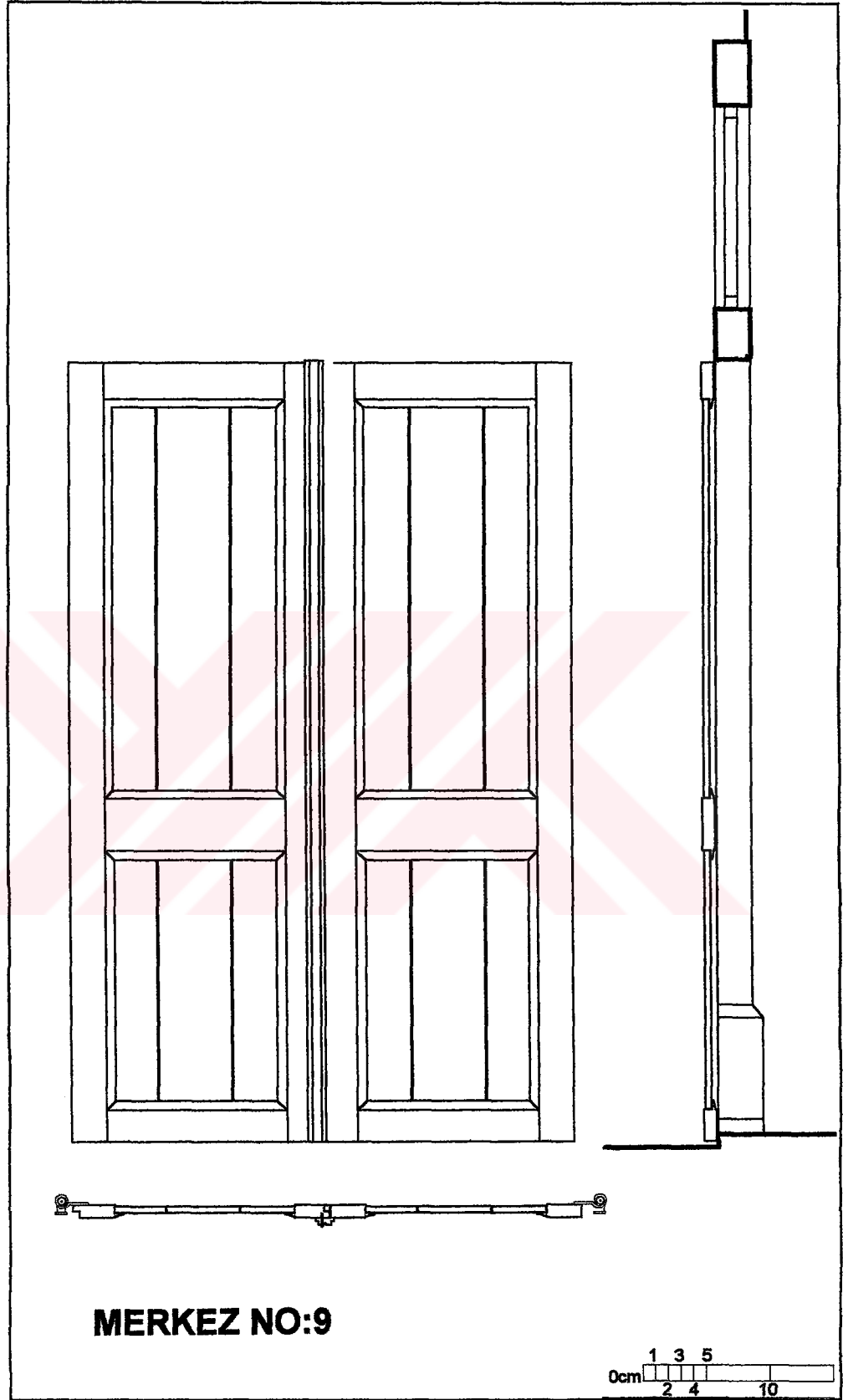


Figure 5.2.81 DW03 Interior Elevation and Section

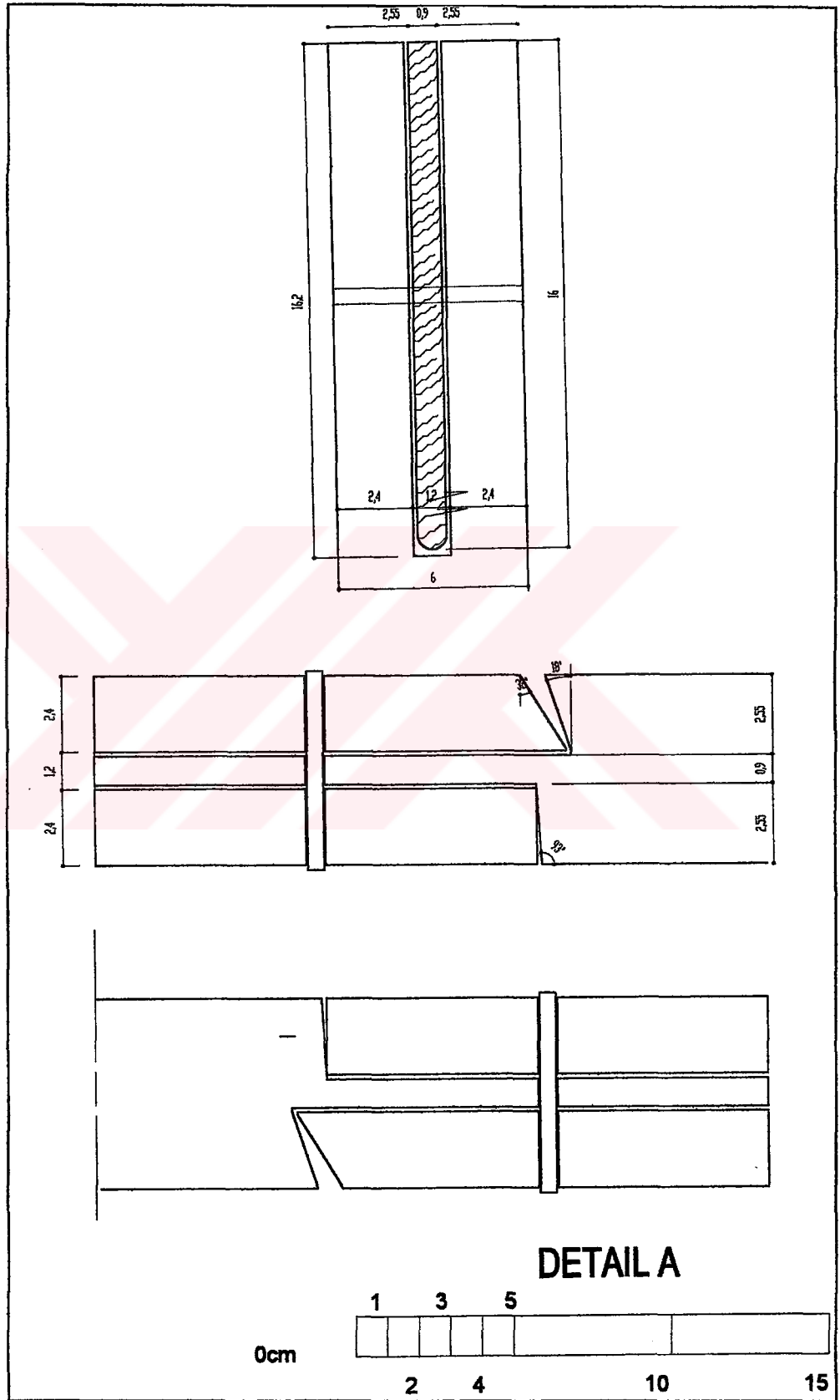
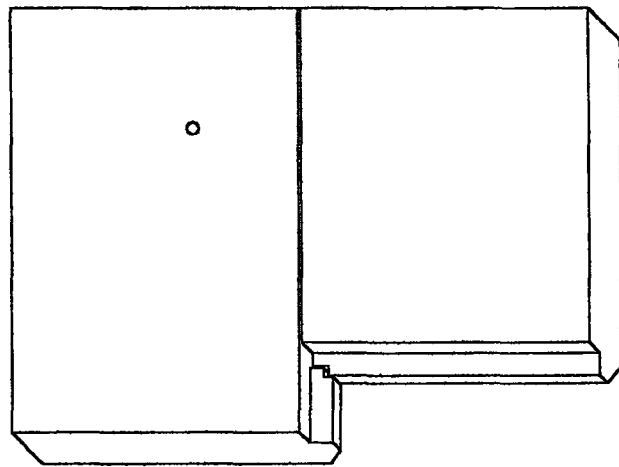
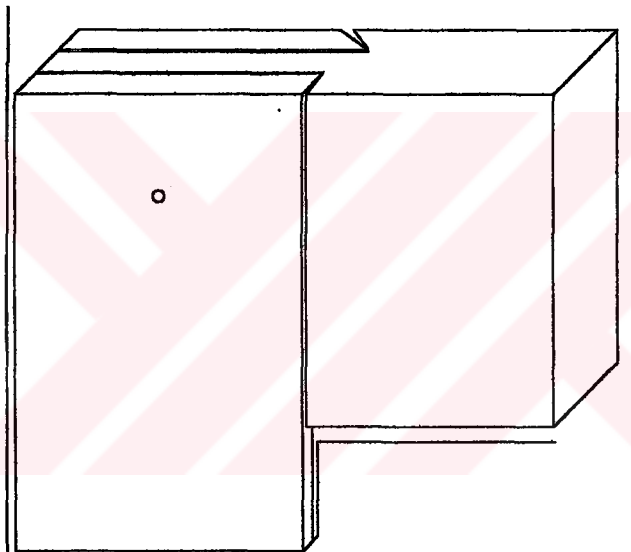
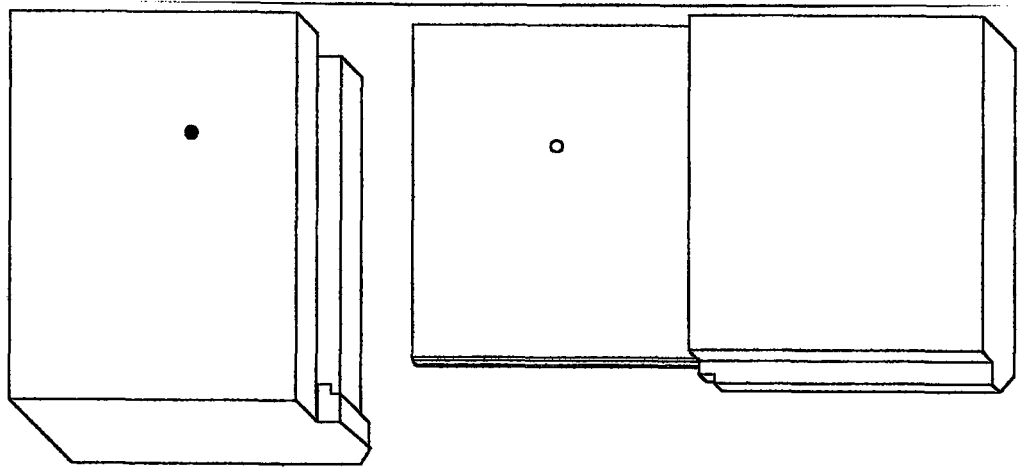


Figure 5.2.82 DW03 Details



**DETAIL A**

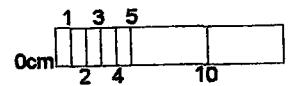


Figure 5.2.83 DW03 Details



The third type, DW04B, has bigger openings and thus a shorter lower section. There is an iron ornamentation in this section. It is seen in Karagöz Sokağı No:26, Fevzi Çakmak Caddesi No:44, Merkez Caddesi no:19, Kaptan Sokağı No:3, and Sahil Caddesi No:69. Check drawings for further information (Figure 5.2-100-5.2.107)

### Type DM01

This is a simple, single-winged iron door. It is seen in İzmir Caddesi No:42, 44, Benel Sokağı No:13, Merkez Caddesi No:37, 39, Çınar Sokağı No:23, 39, 44, 46. (Figure 5.1.21 – 5.1.22, and 5.1.23) Check drawings for further information (Figure 5.2-100-5.2.107)

### Type DM02

This is a simple, two-winged iron door. Its details are the same as the previous type. It has three main divisions according to some little variations, yet there are no differences in their construction details and techniques. DM02A is seen in İzmir Caddesi No:47, 22, 32, 34, 58, Pınar Sokağı No:29, Çarşı Caddesi No:20, 22, Fevzi Çakmak Caddesi No:61, Kurtuluş Caddesi No:33, Kaptan Sokağı No:7, Hacı Mehmet Sokağı No:10, 12, Karagöz Sokağı No:11. It is two-winged and has four divisions on each wing. The third type, DM02B, again have the same details, but it has five divisions. It is seen in Karagöz Sokağı No:24, İzmir Caddesi No: 83, 85, 30. The door in Hayat Sokağı No:1 has two squarish openings on each wings covered by simple bars. This makes no difference in construction details. The doors in Karagöz Sokağı No:22 and Çınar Sokağı No:6 have iron ornamentation on each division. This ornamentation is the same as the one seen in lower sections of doors with openings. (Figure 5.1.24 – 5.1.25) Check drawings for further information (Figure 5.2-100-5.2.107)

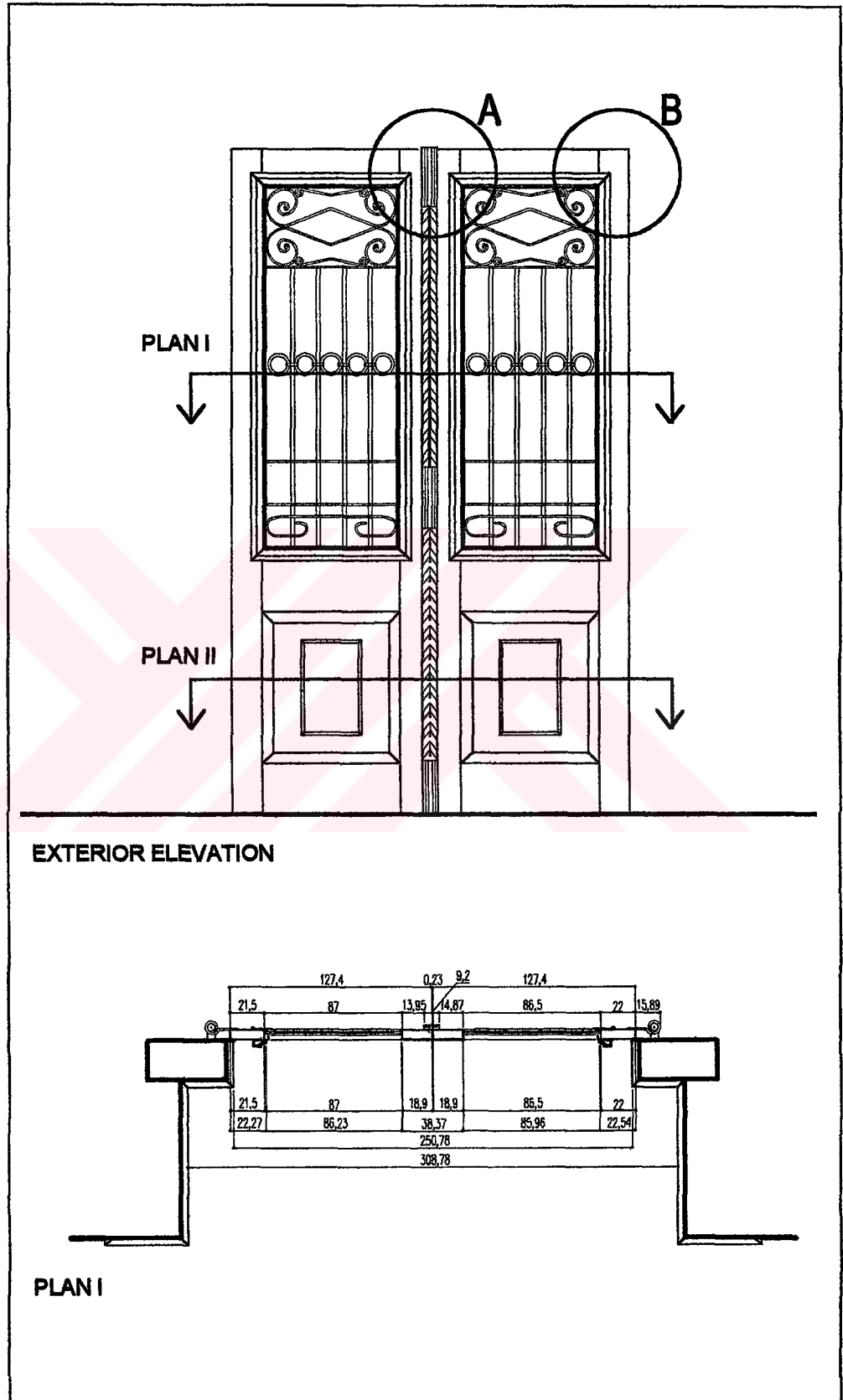


Figure 5.2.84 DW04A-İzmir Caddesi No:54 Exterior Elevation and Plan

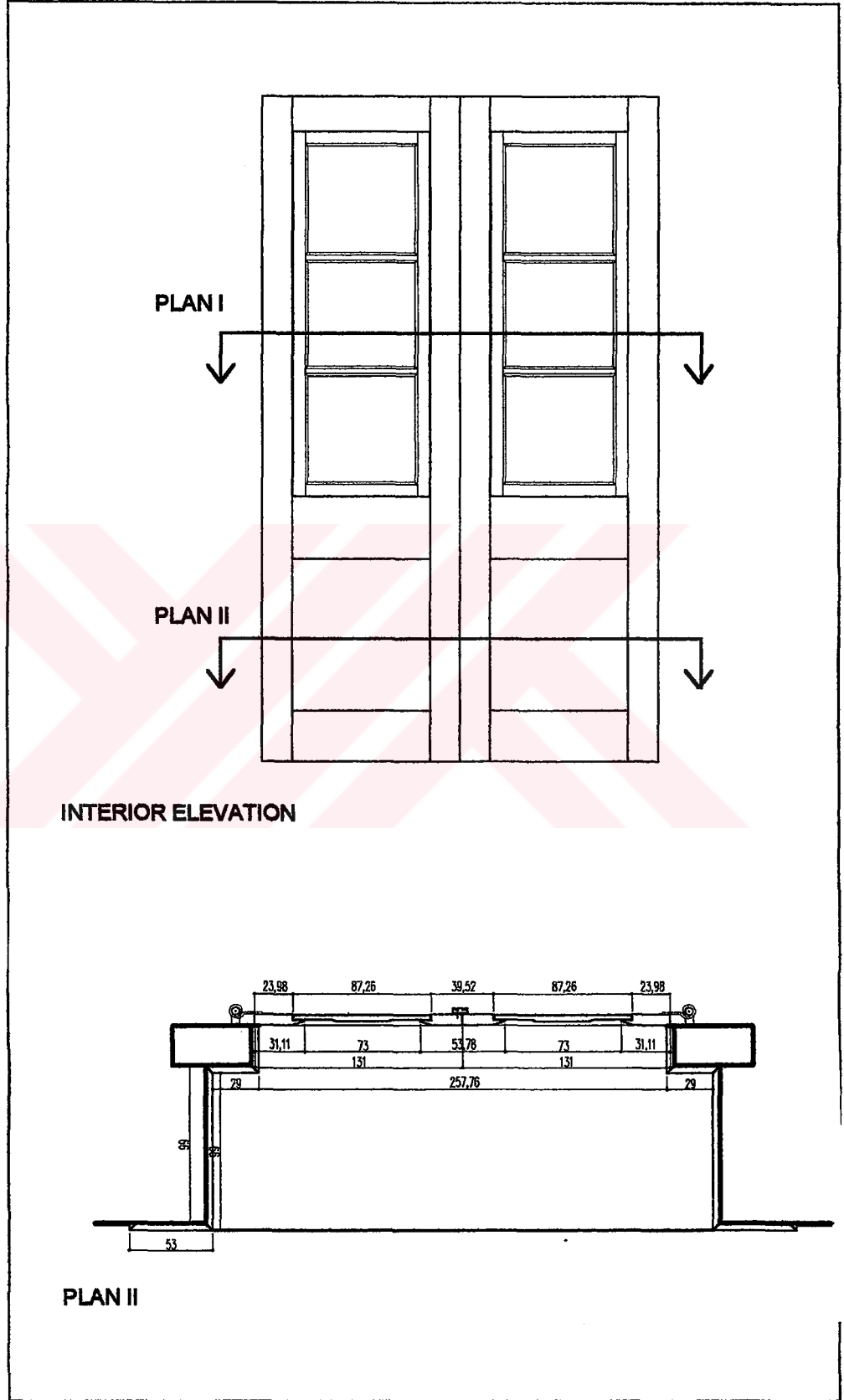


Figure 5.2.85 DW04A İzmir Caddesi No:54 - Interior Elevation and Plan

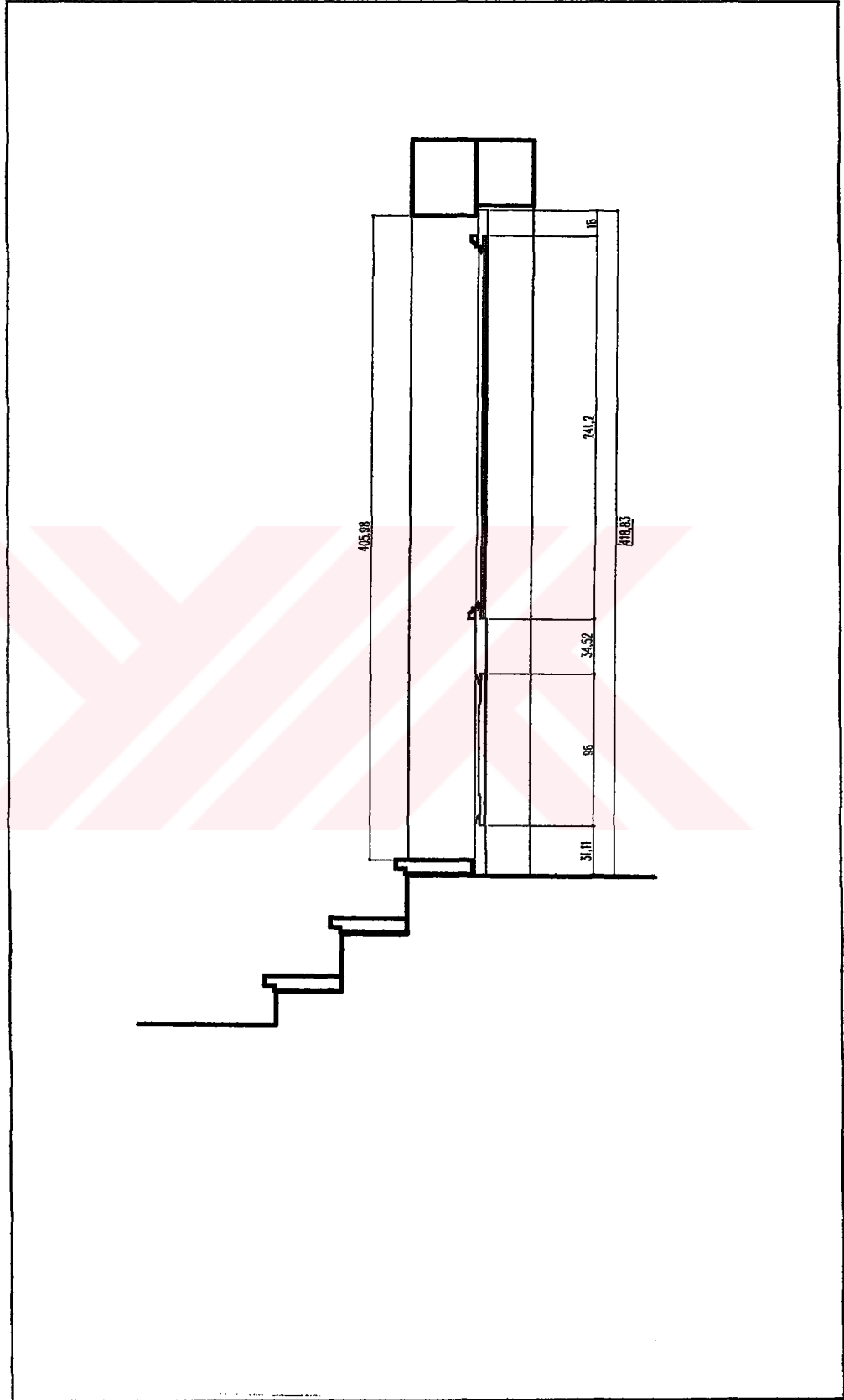


Figure 5.2.86 DW04A İzmir Caddesi No:54 - Section

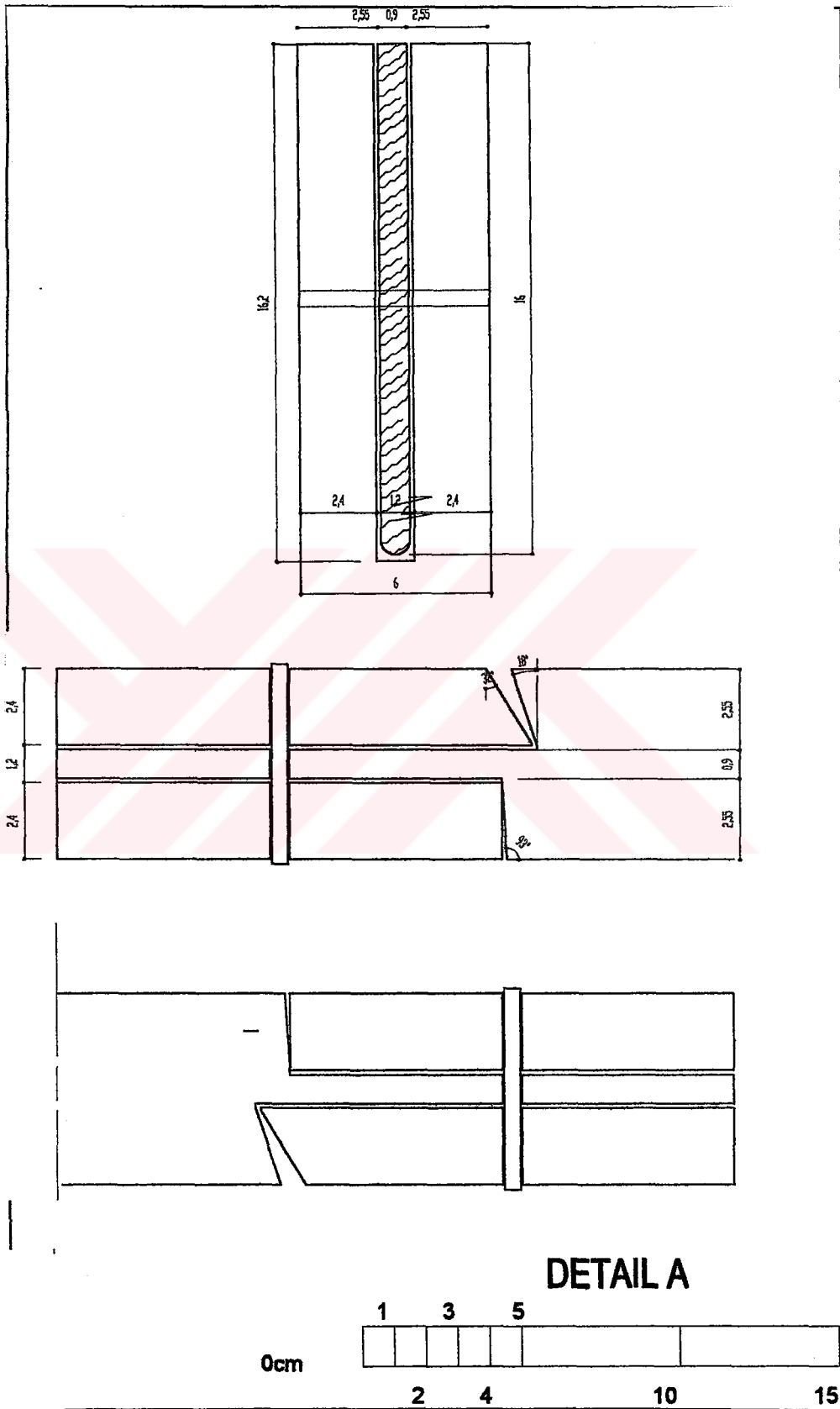
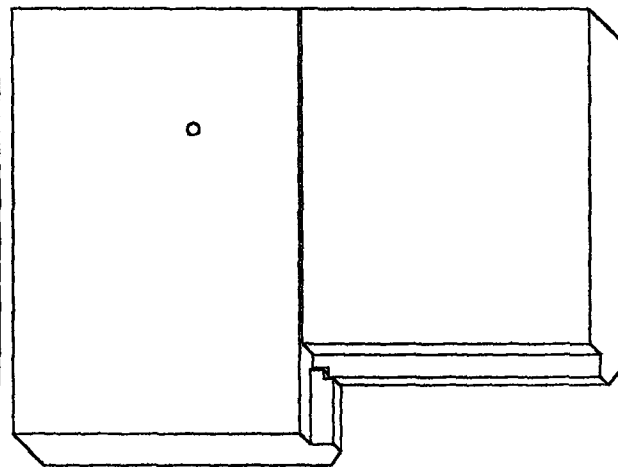
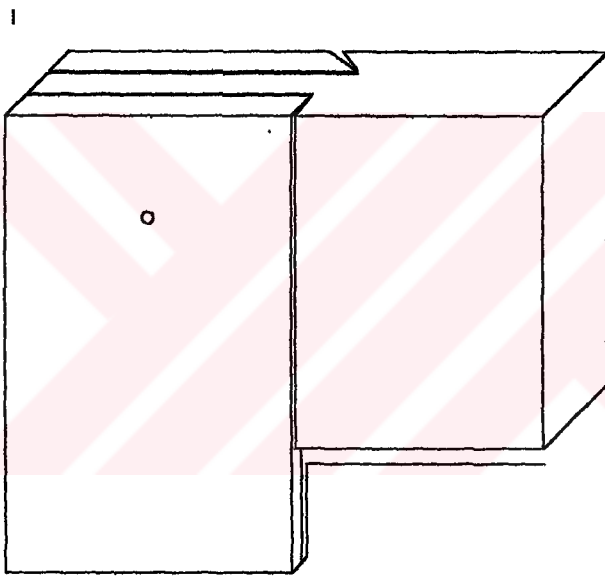
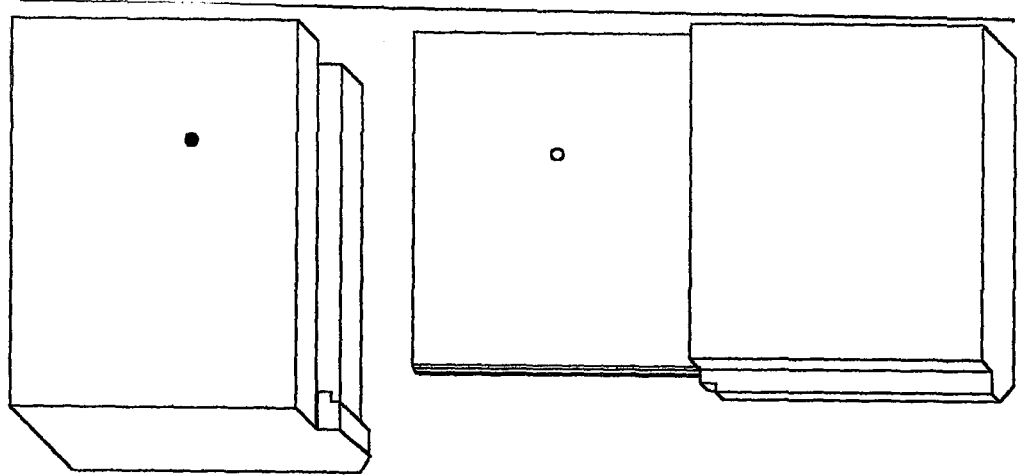


Figure 5.2.87 DW04A İzmir Caddesi No:54 - Details



DETAIL A

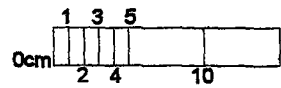


Figure 5.2.88 DW04A İzmir Caddesi No:54 - Details

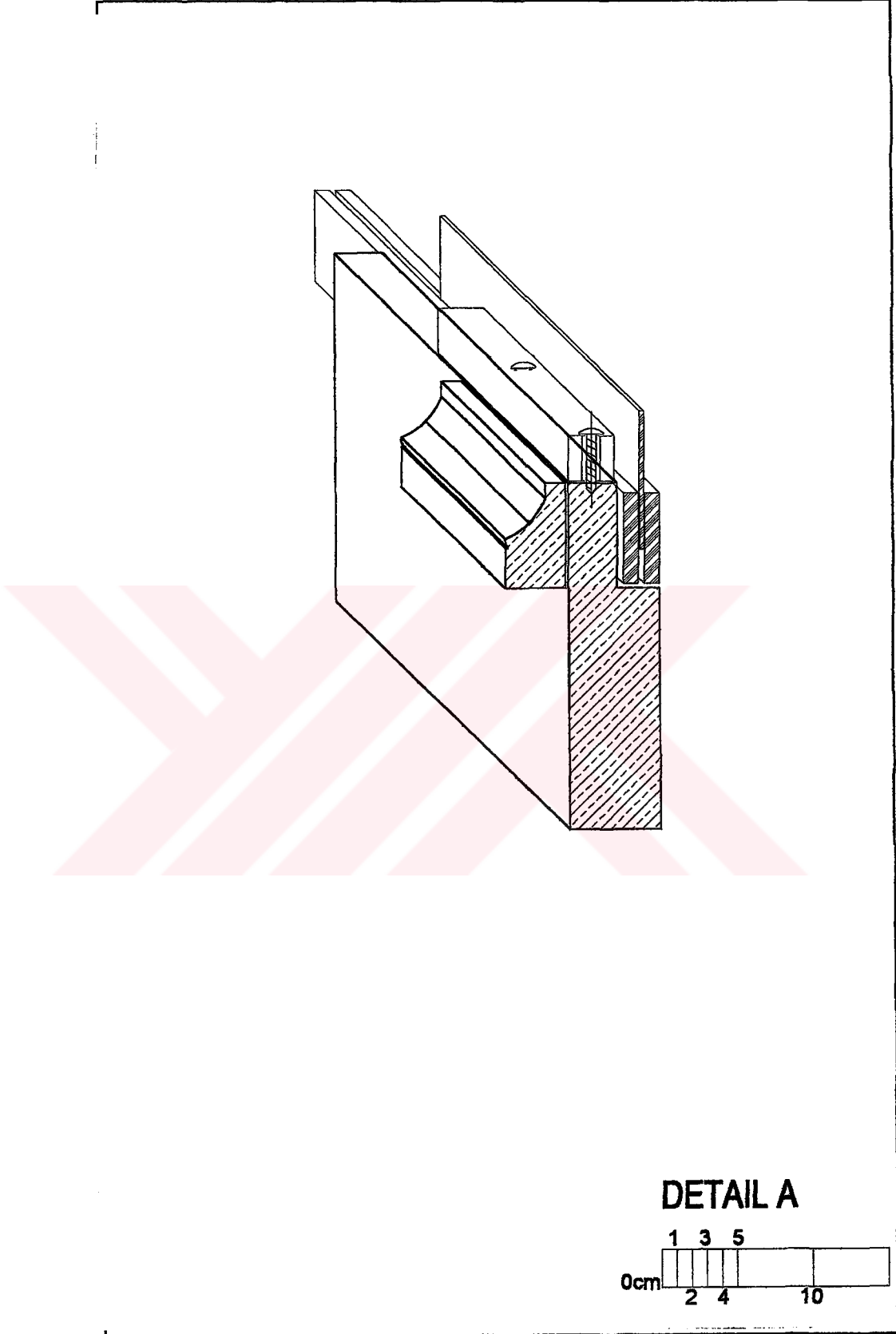


Figure 5.2.89 DW04A İzmir Caddesi No:54 - Details

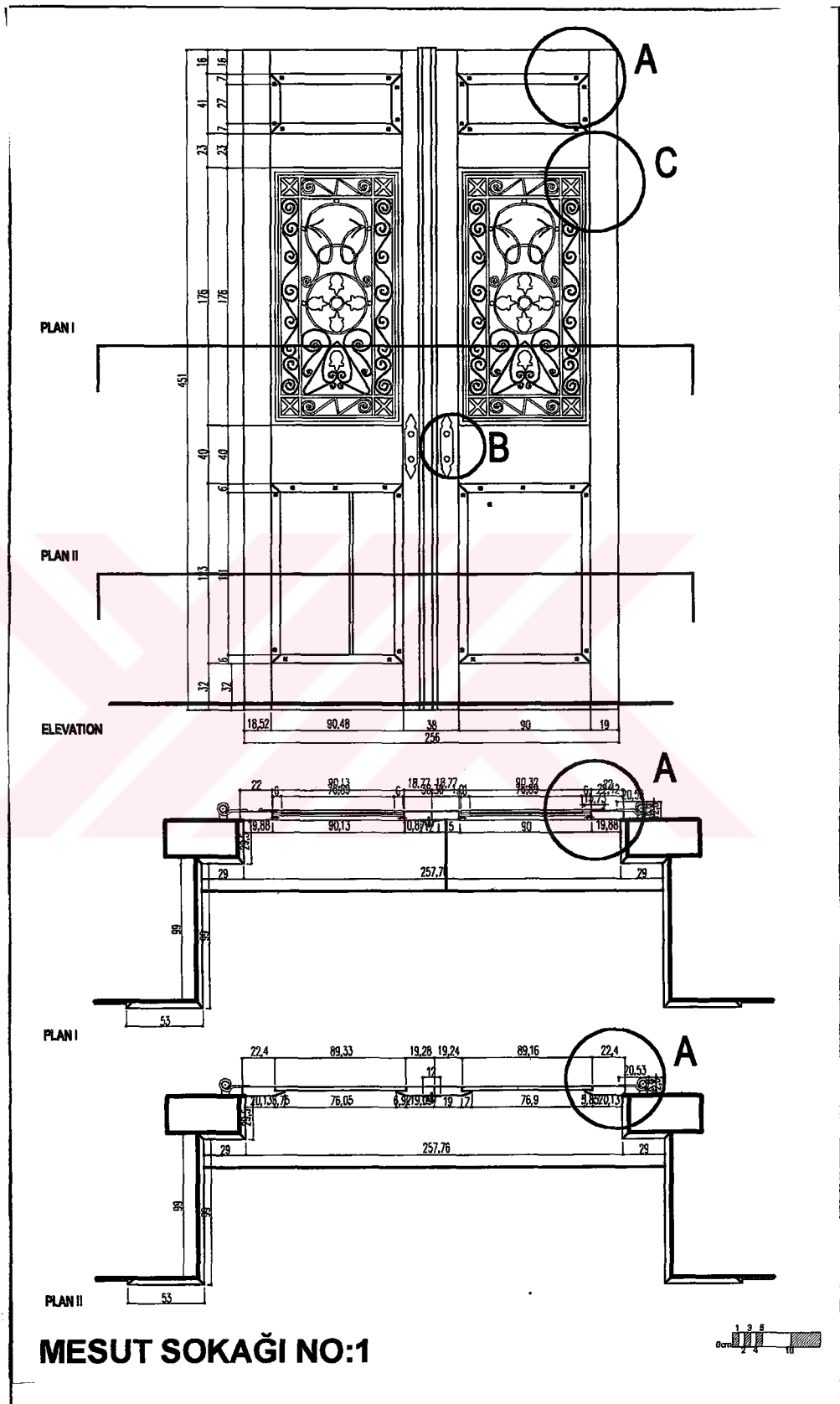


Figure 5.2.90 DW04A Mesut Sokağı No:1 – Exterior Elevation and Plans



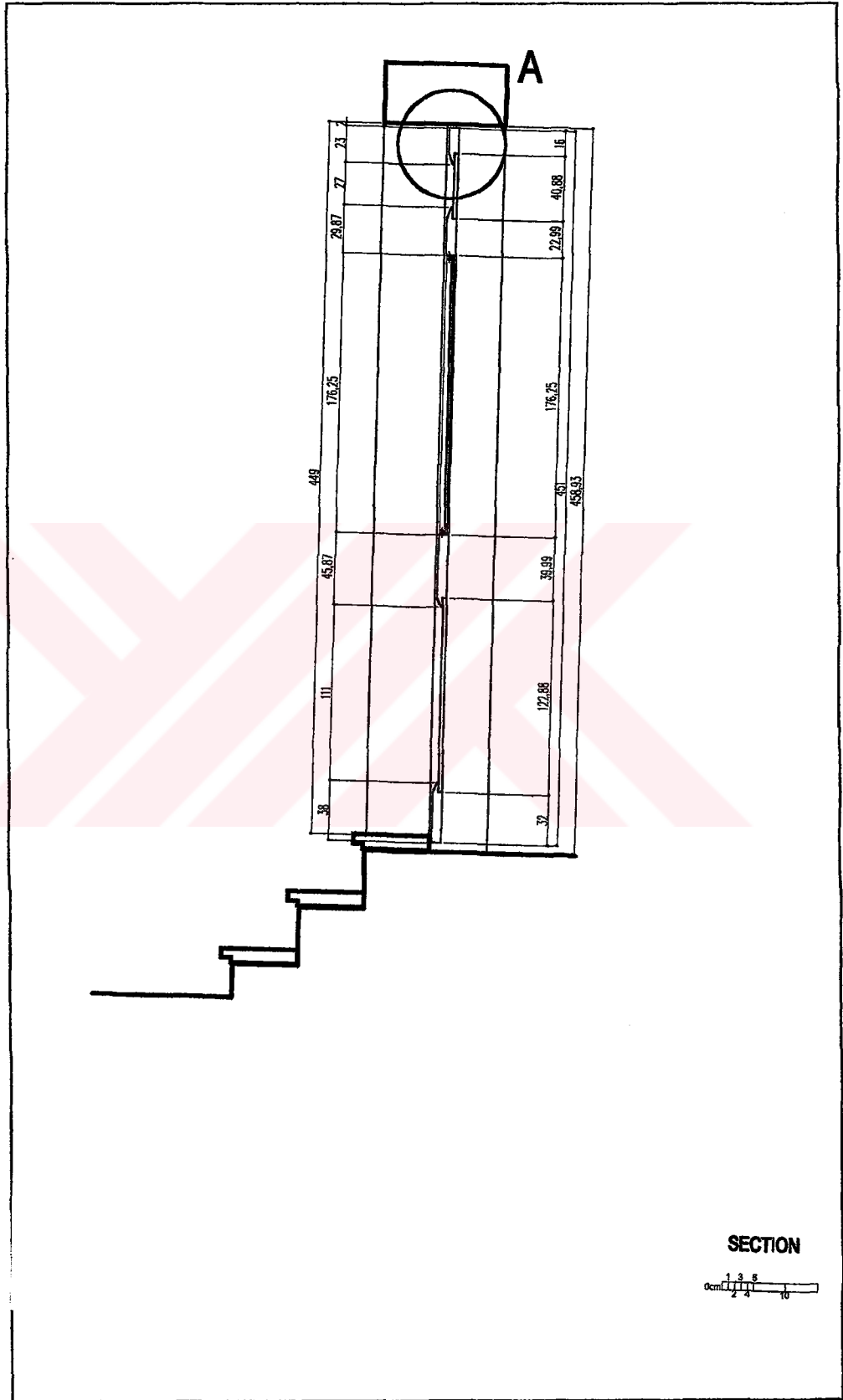


Figure 5.2.91 DW04A Mesut Sokağı No:1 - Section

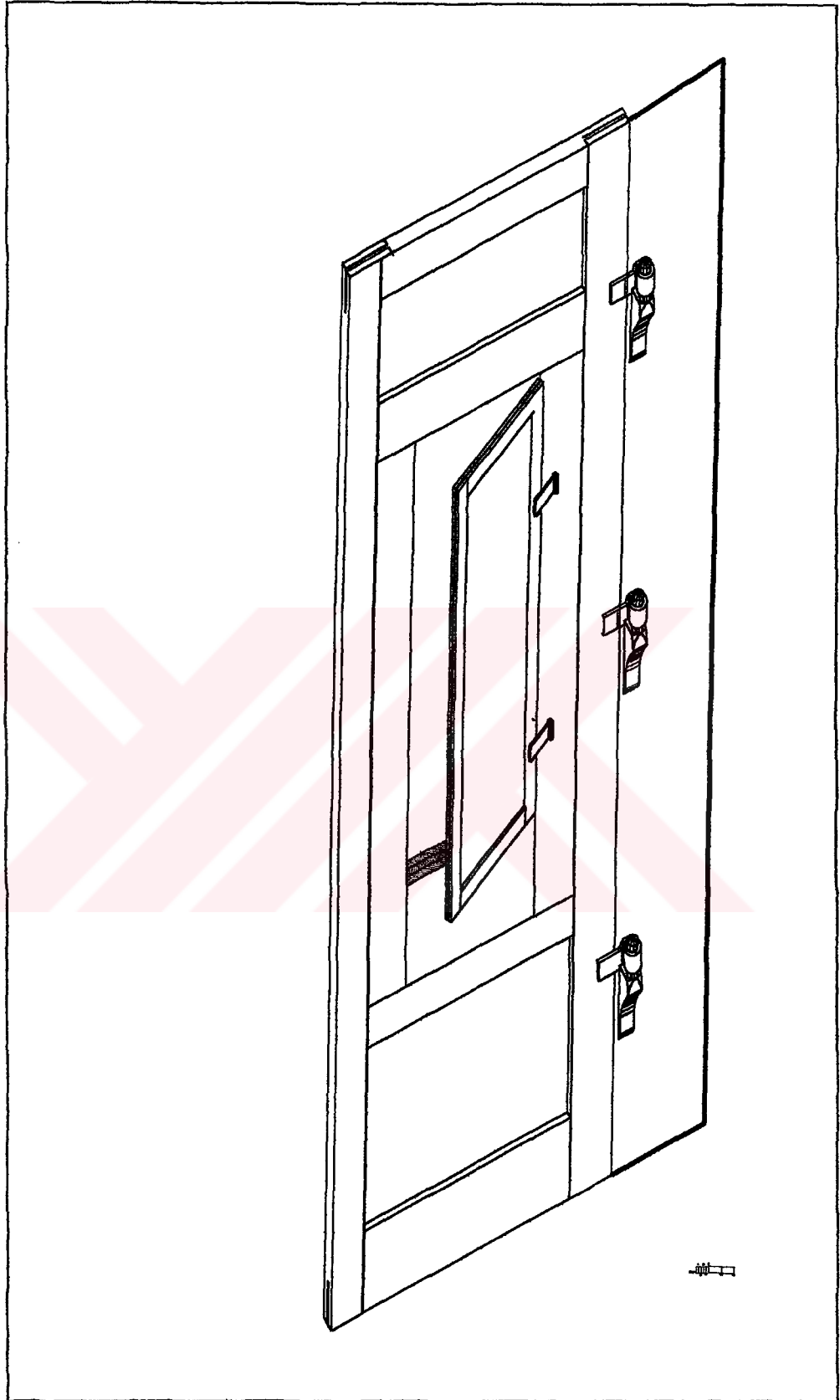


Figure 5.2.92 DW04A Mesut Sokağı No:1 – 3D Drawing



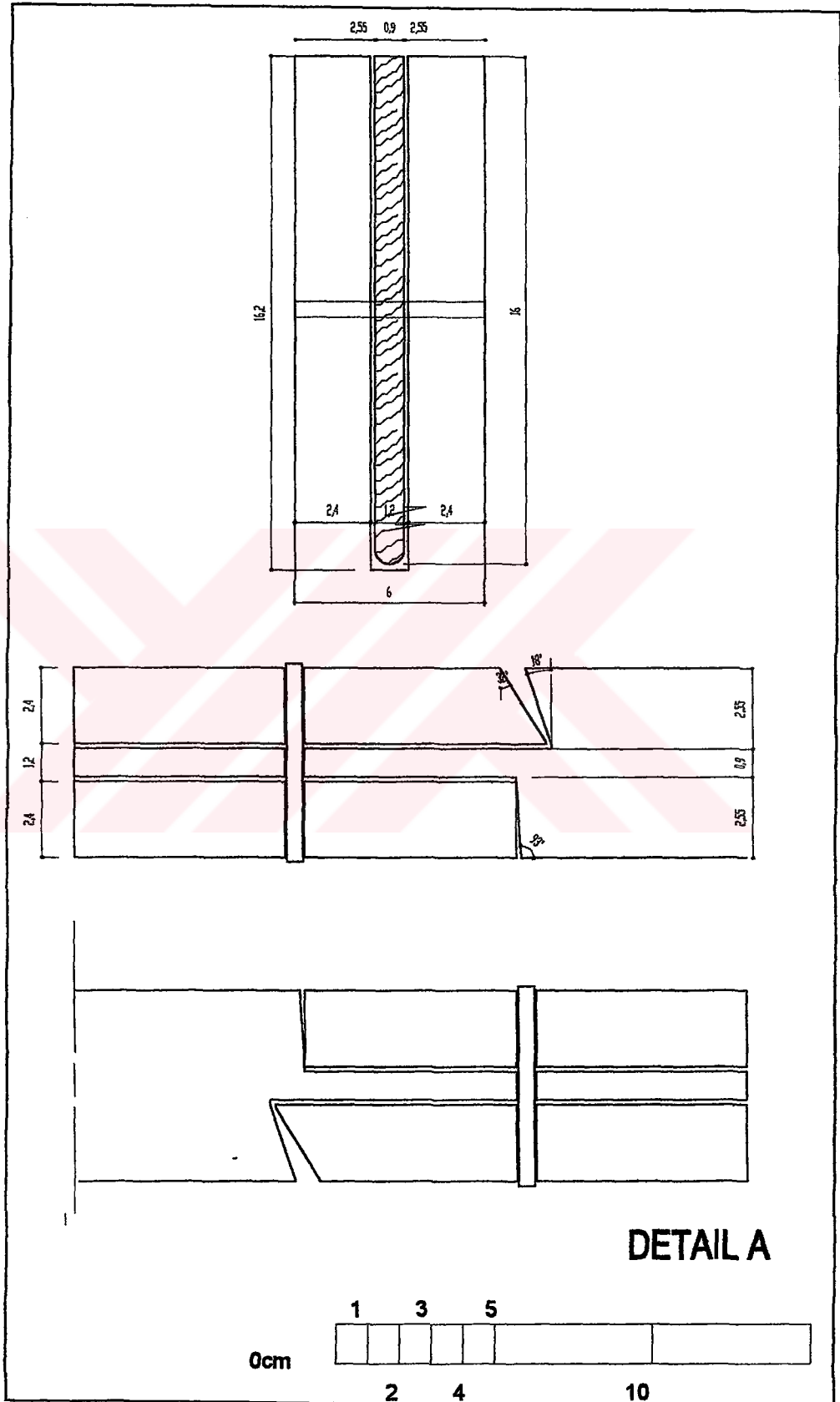


Figure 5.2.94 DW04A Mesut Sokağı No:1 - Details

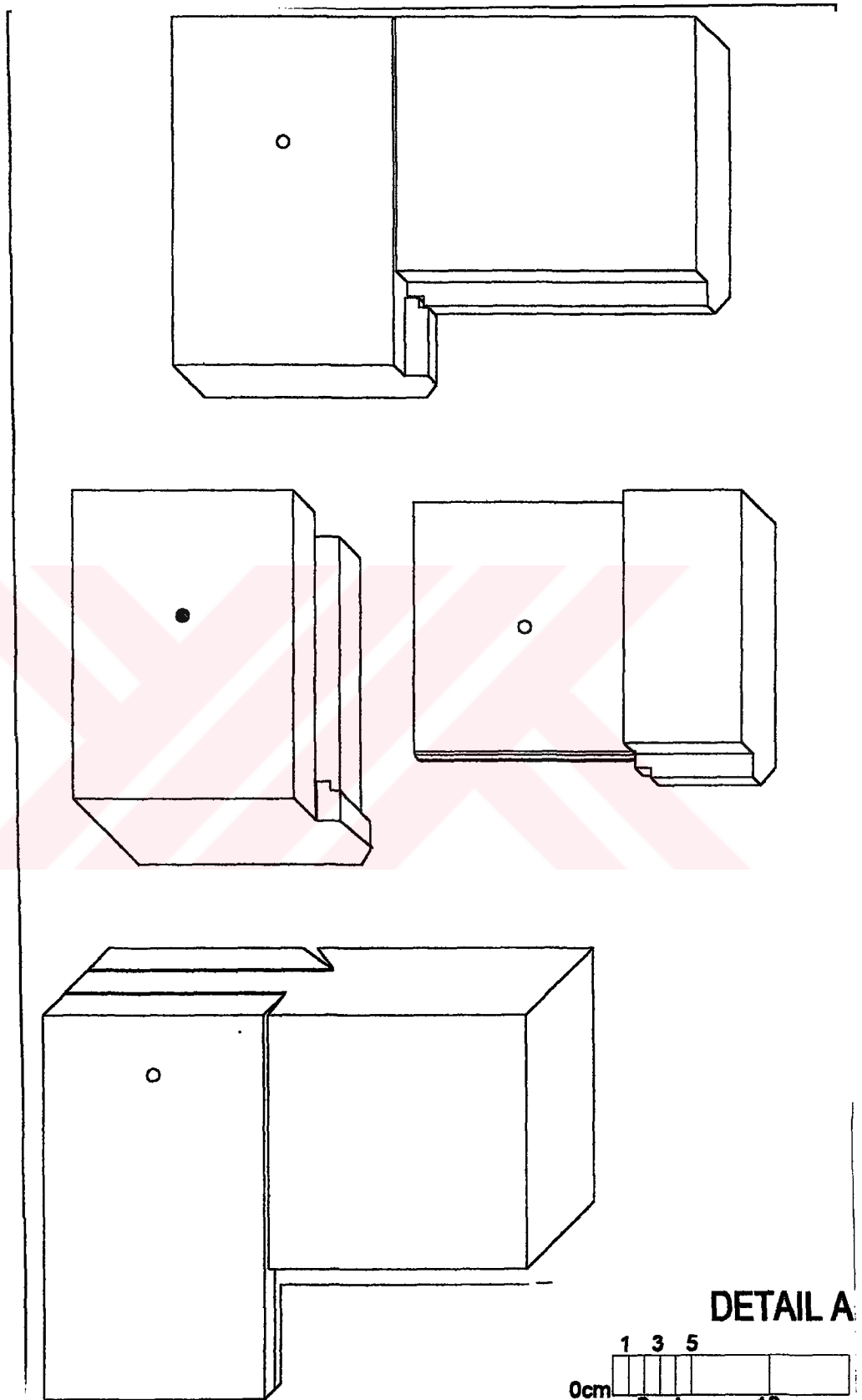


Figure 5.2.95 DW04A Mesut Sokağı No:1 - Details

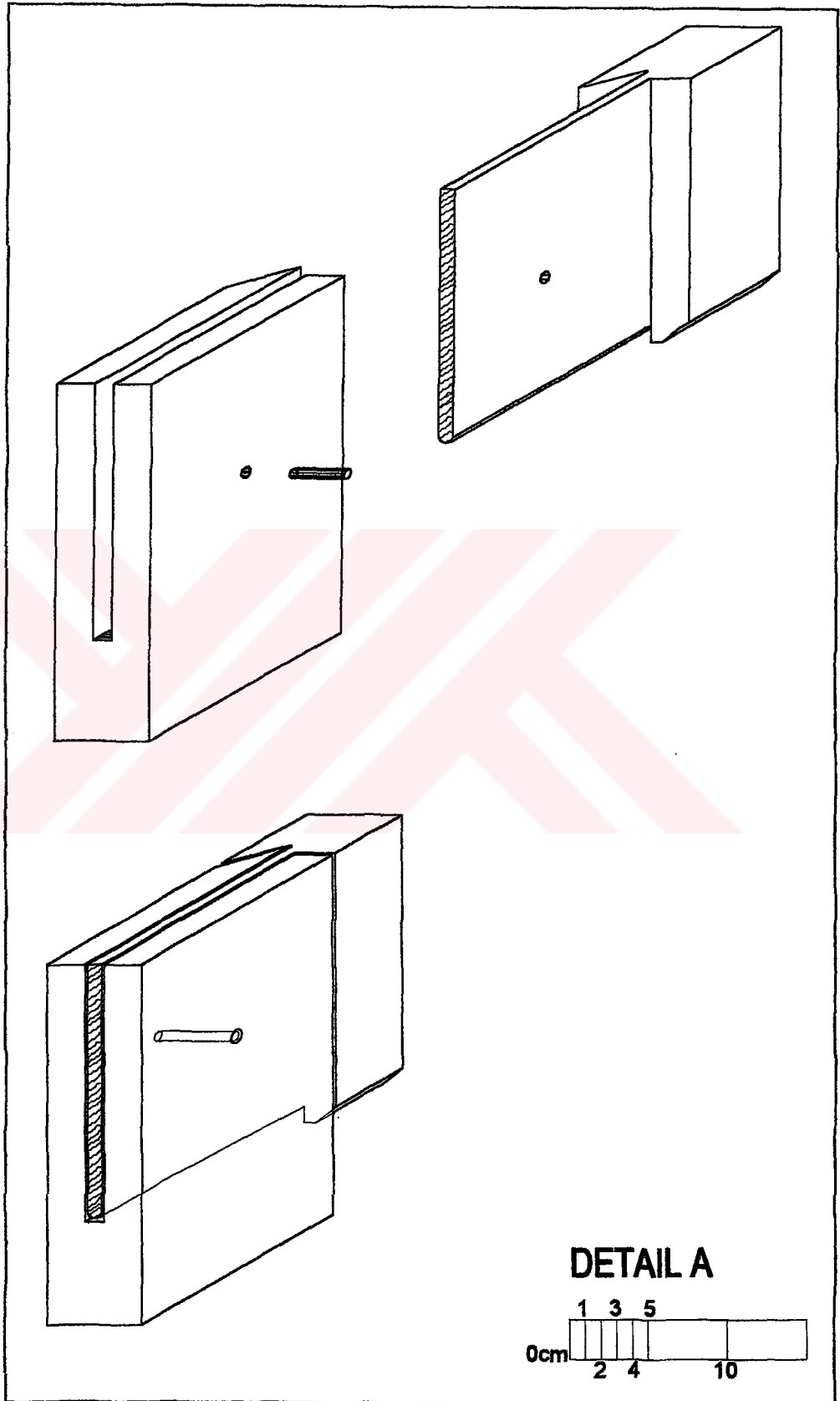


Figure 5.2.96 DW04A Mesut Sokağı No:1 - Details

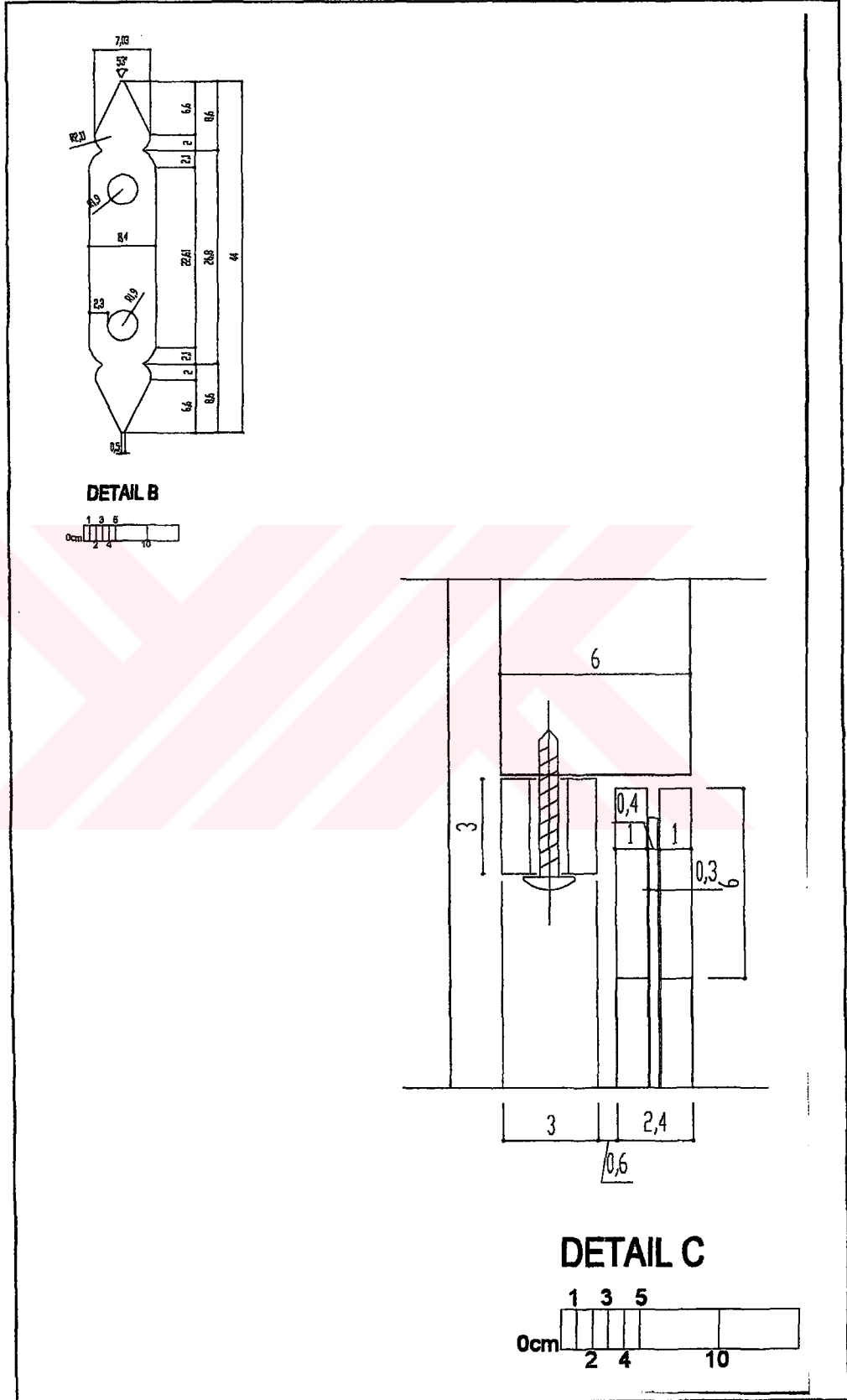


Figure 5.2.97 DW04A Mesut Sokağı No:1 - Details

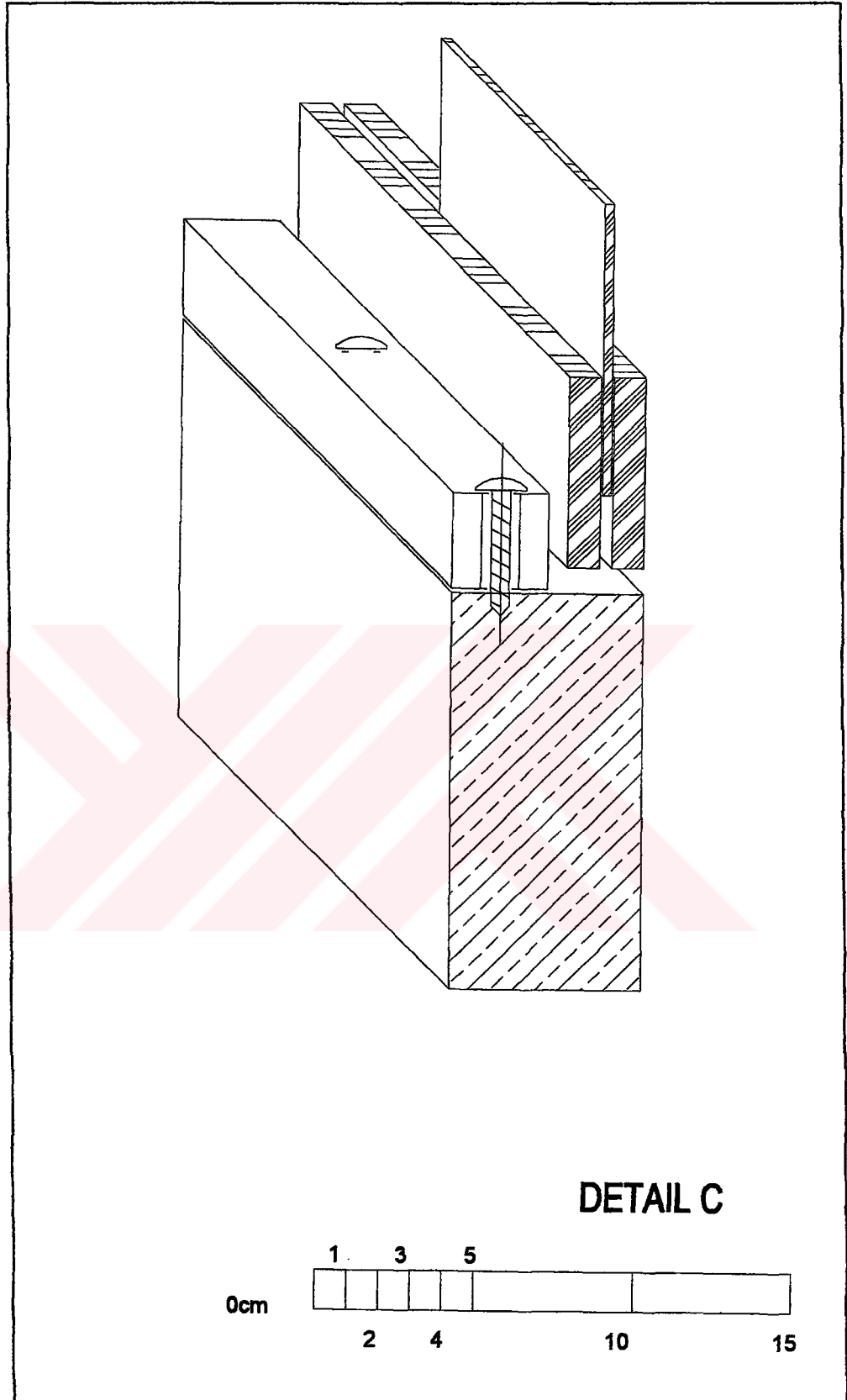


Figure 5.2.98 DW04A Mesut Sokağı No:1 - Details



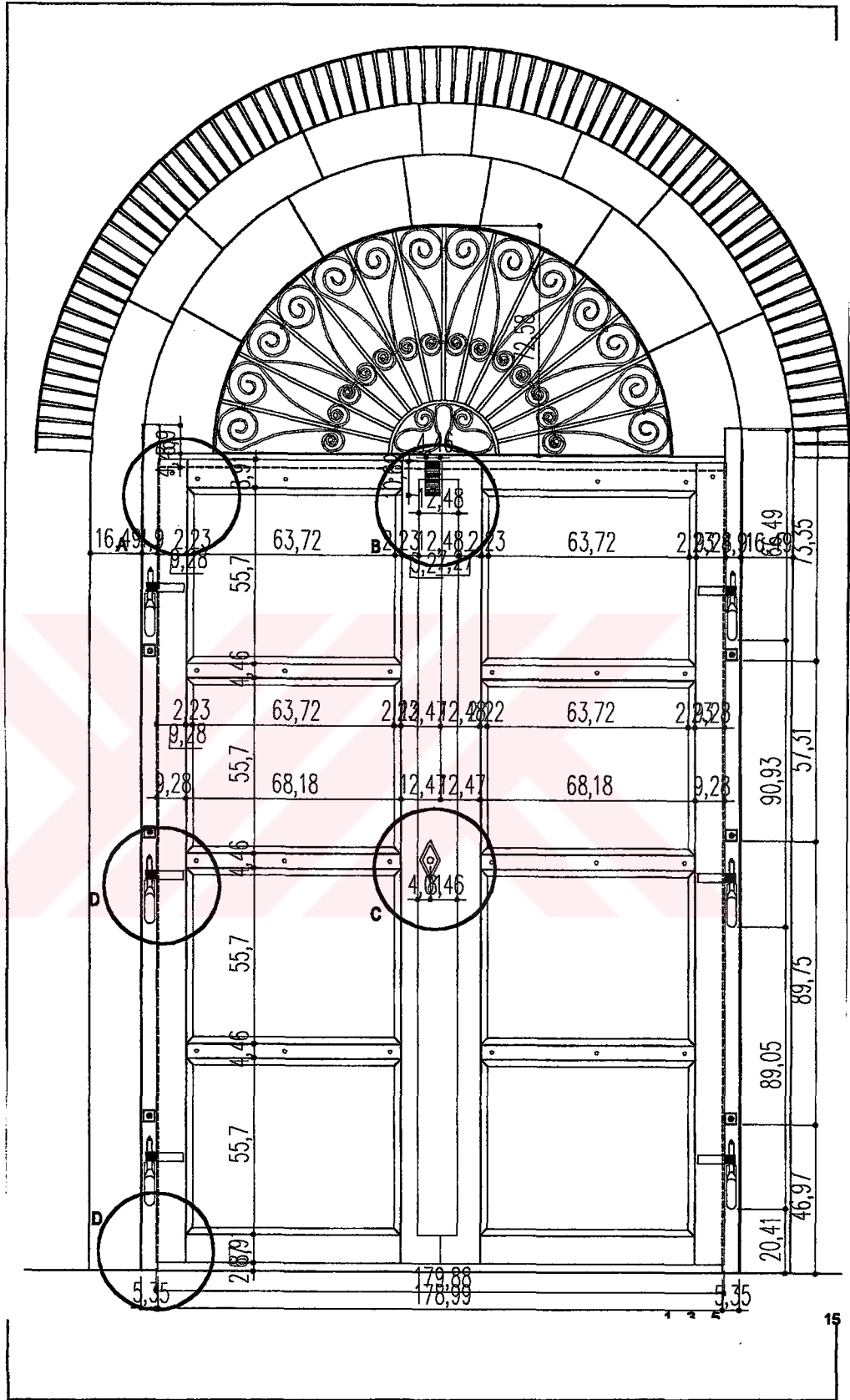


Figure 5.2.99 DM02 İzmir Caddesi No:1 – Elevation and Plan

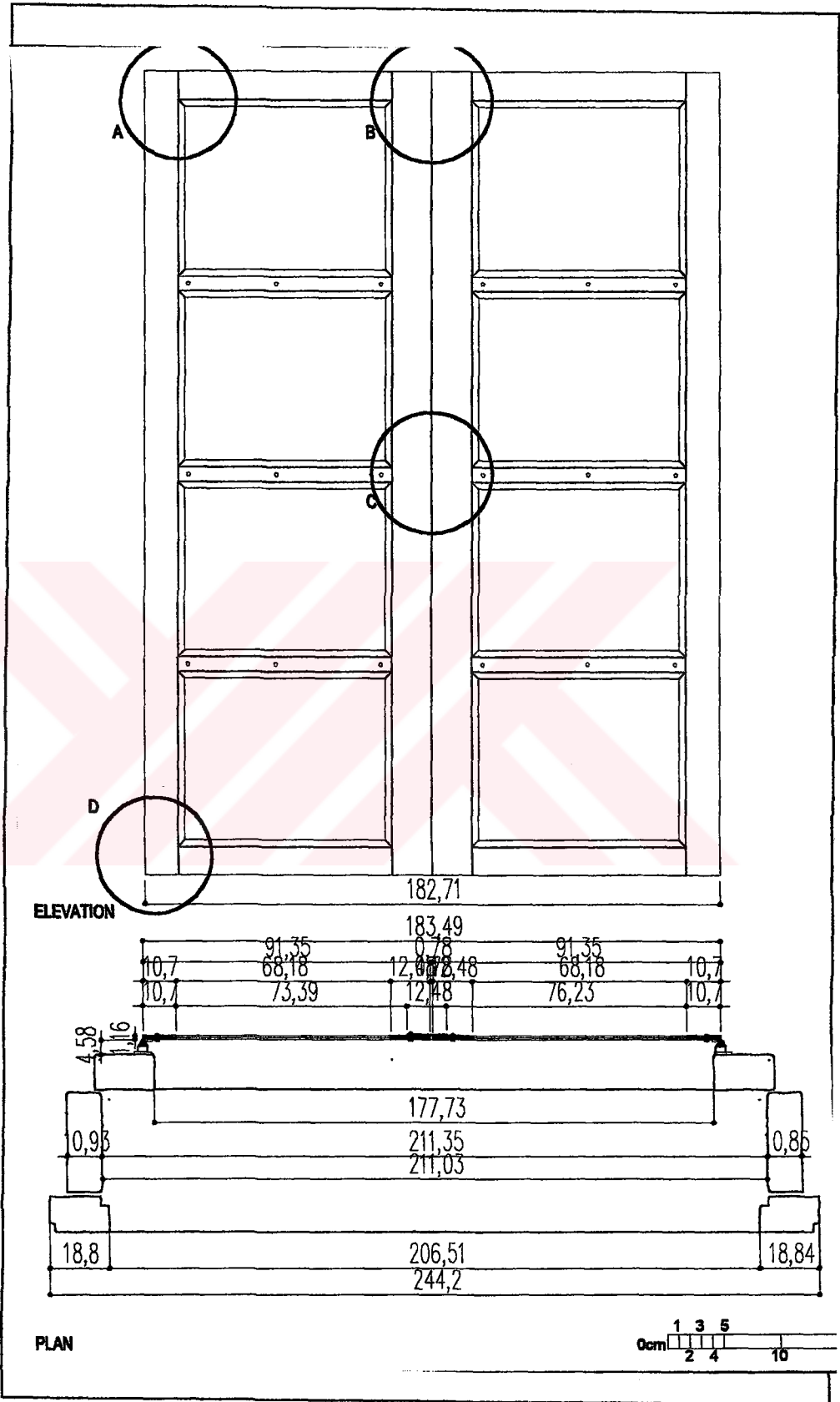


Figure 5.2.100 DM02 İzmir Caddesi No:1 – Exterior Elevation

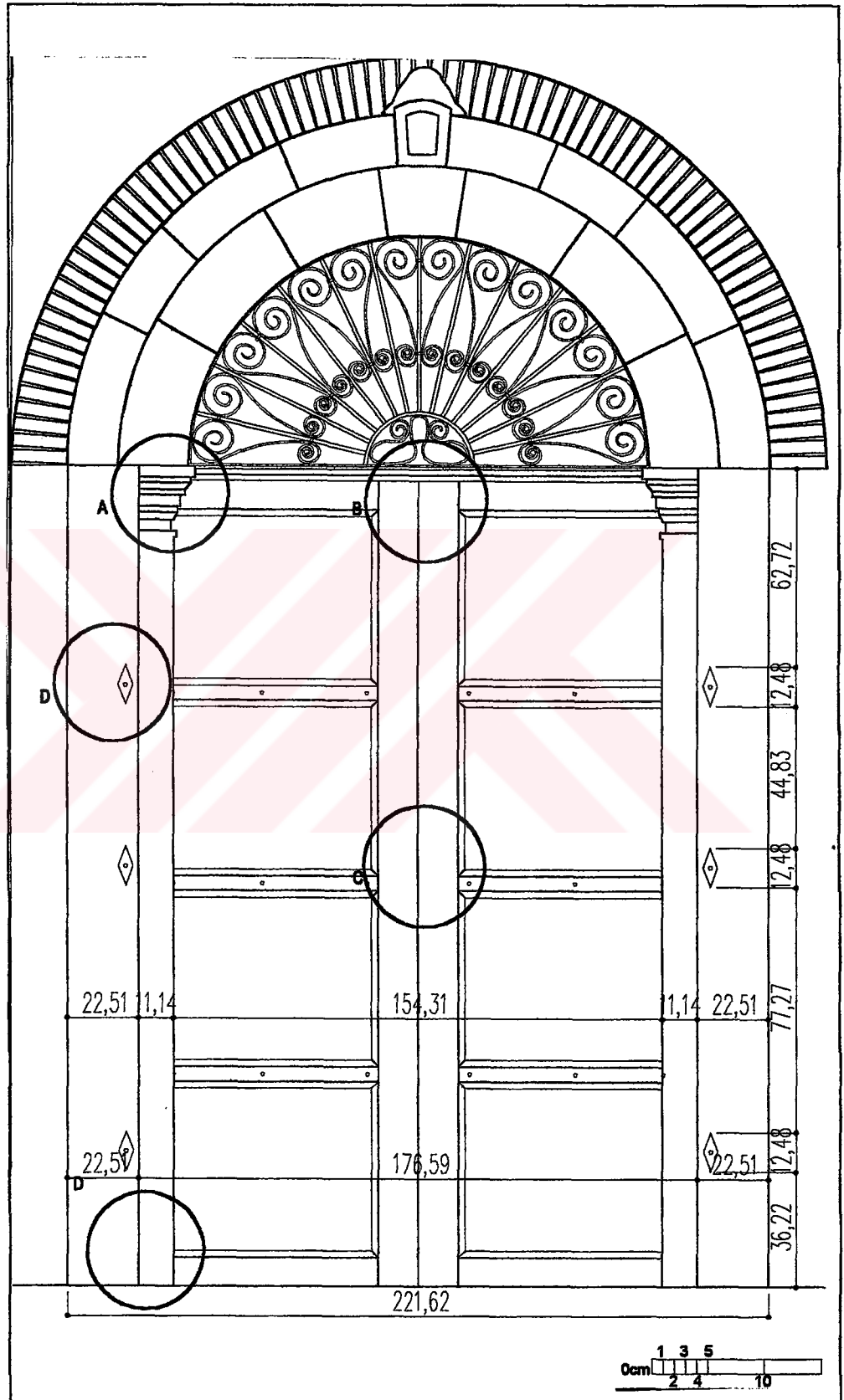


Figure 5.2.101 DM02 İzmir Caddesi No:1 – Interior Elevation

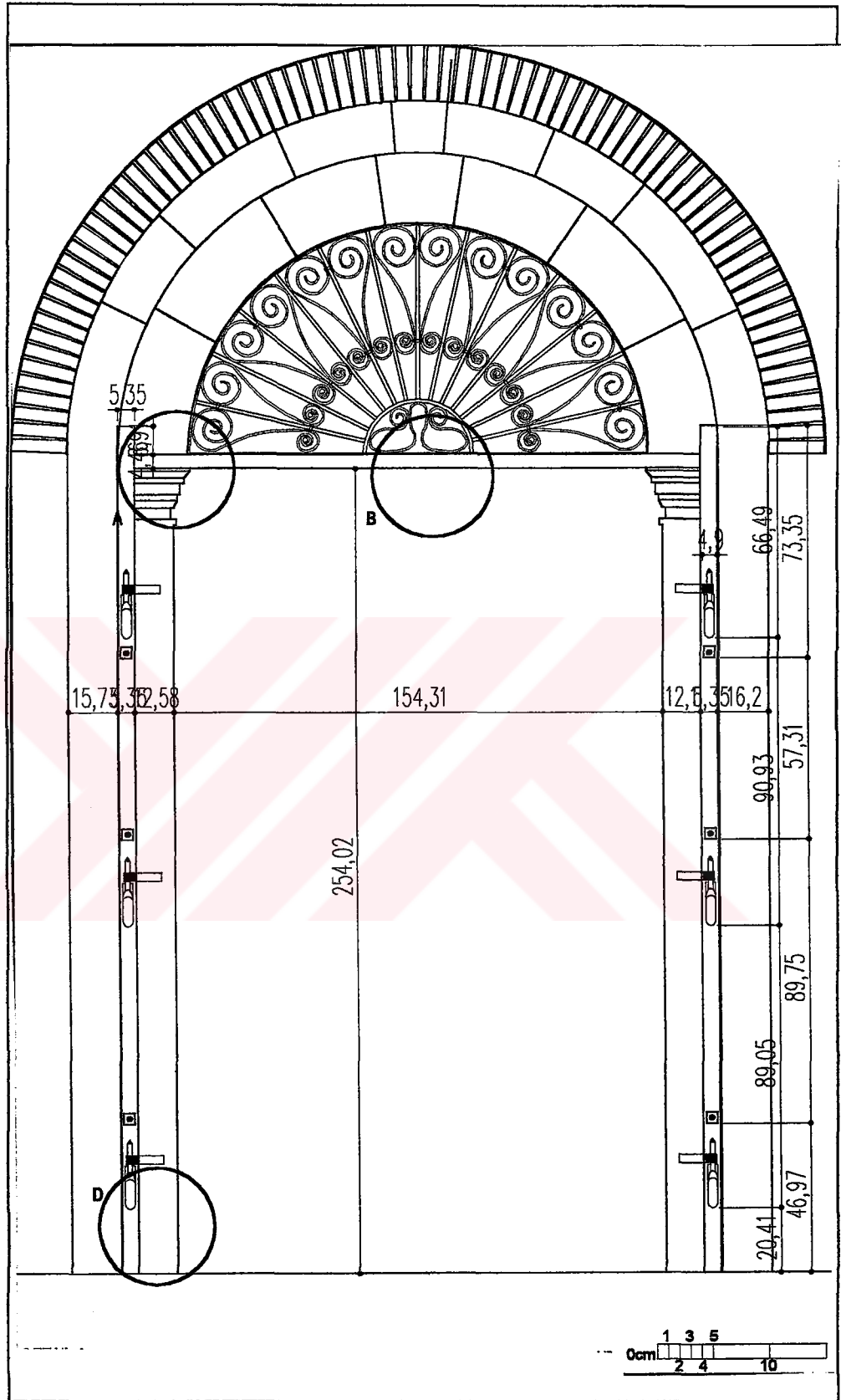


Figure 5.2.102 DM02 İzmir Caddesi No:1 - Section

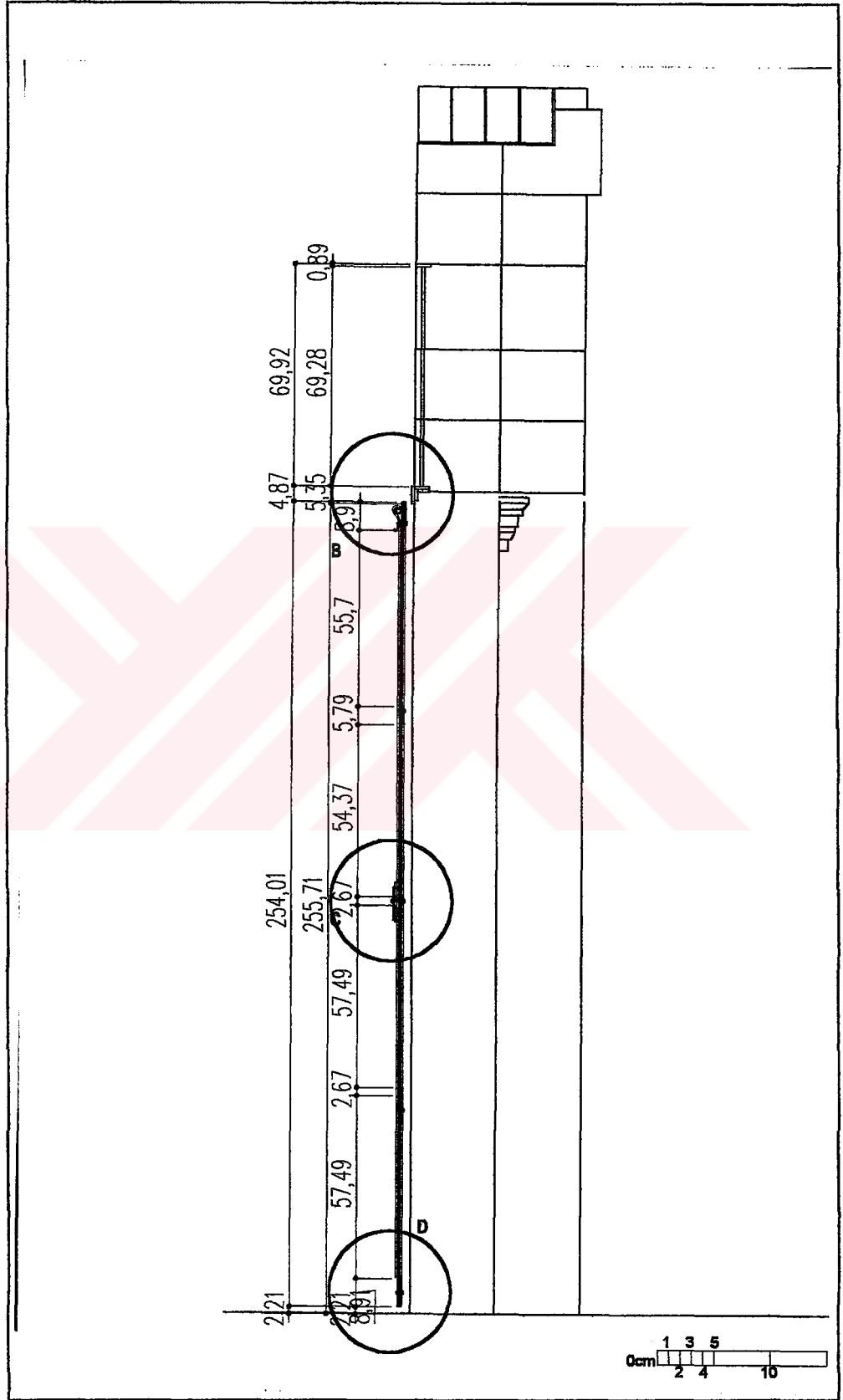


Figure 5.2.103 DM02 İzmir Caddesi No:1 - Details

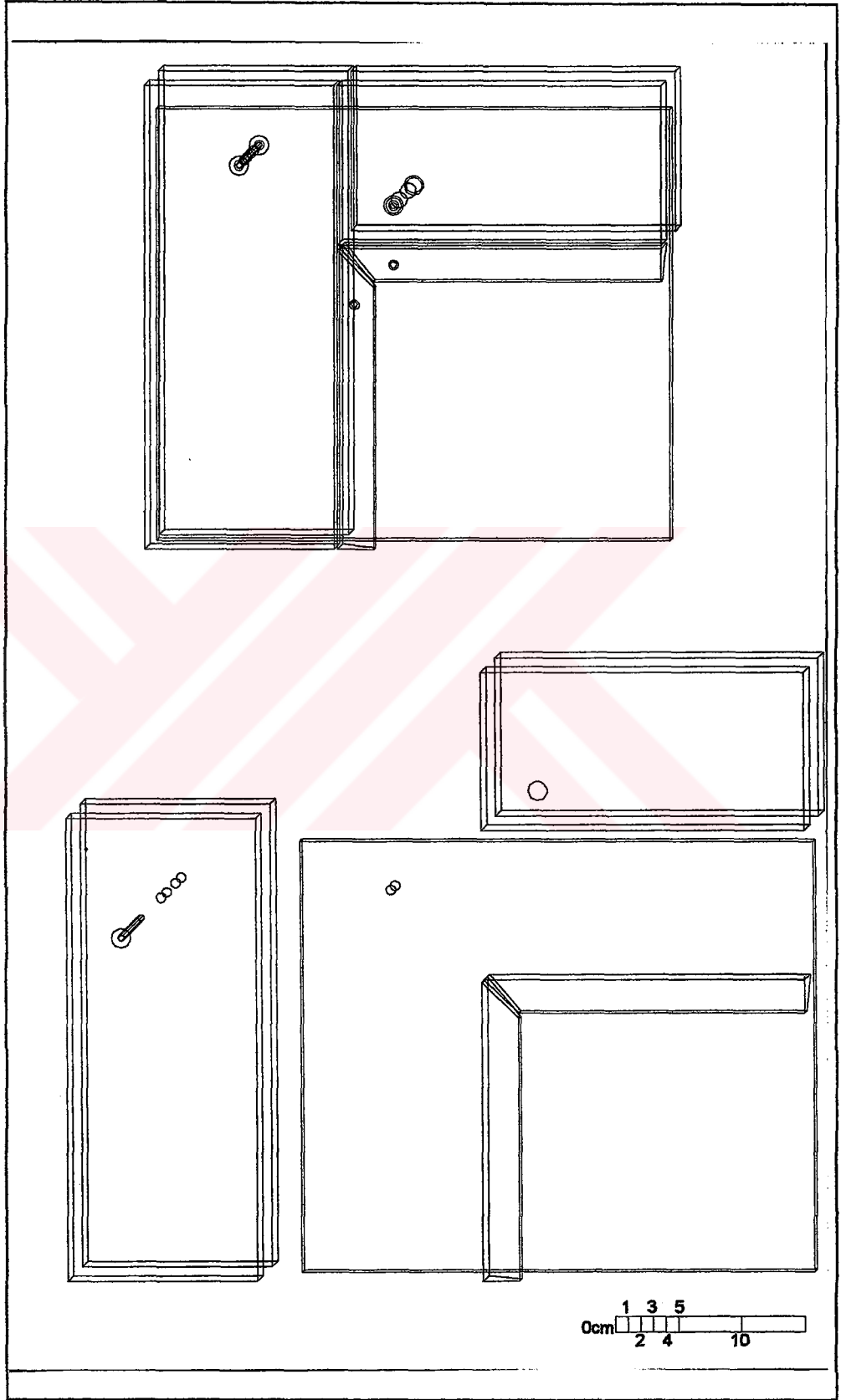


Figure 5.2.104 DM02 İzmir Caddesi No:1 - Details



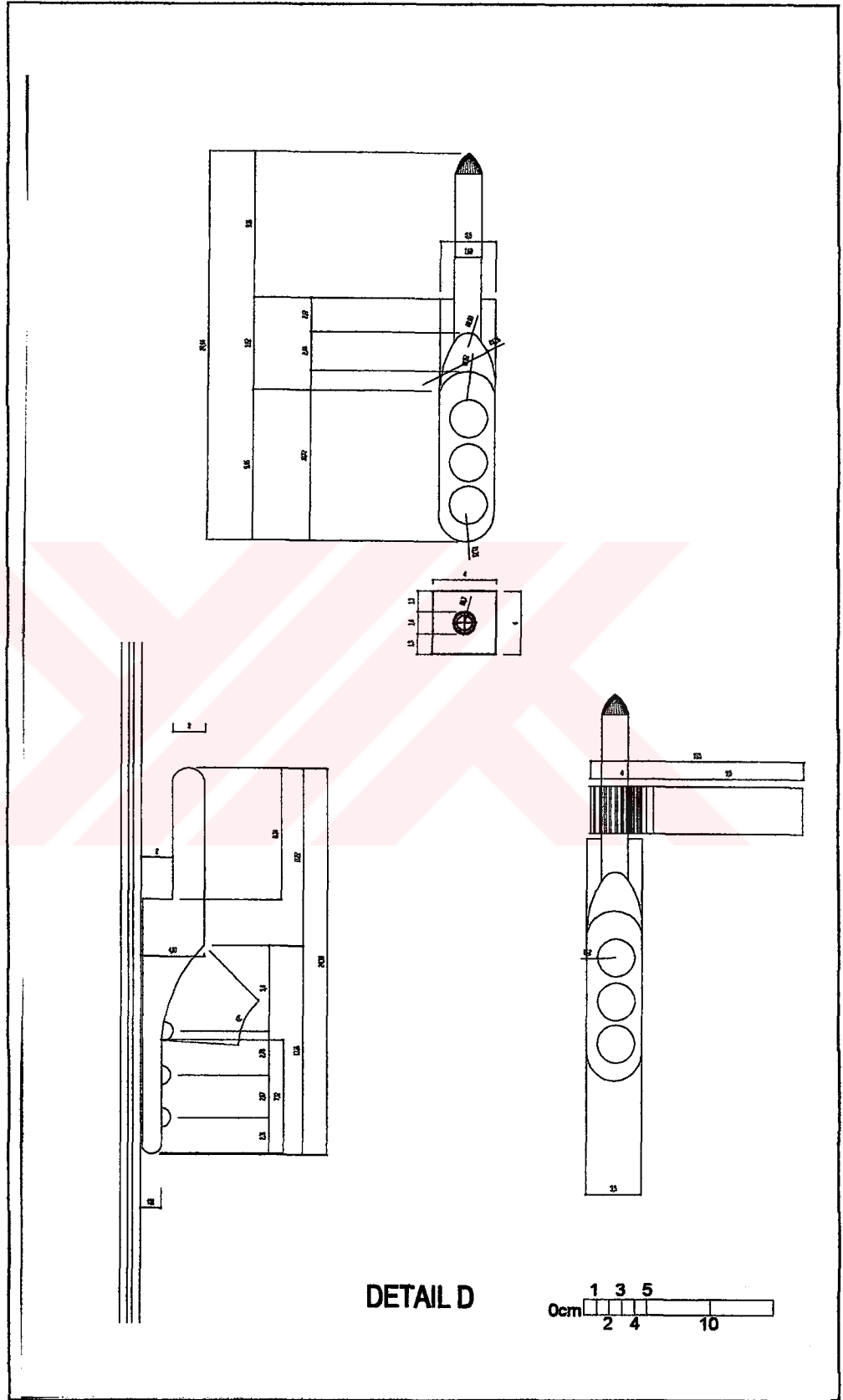


Figure 5.2.106 DM02 İzmir Caddesi No:1 - Details



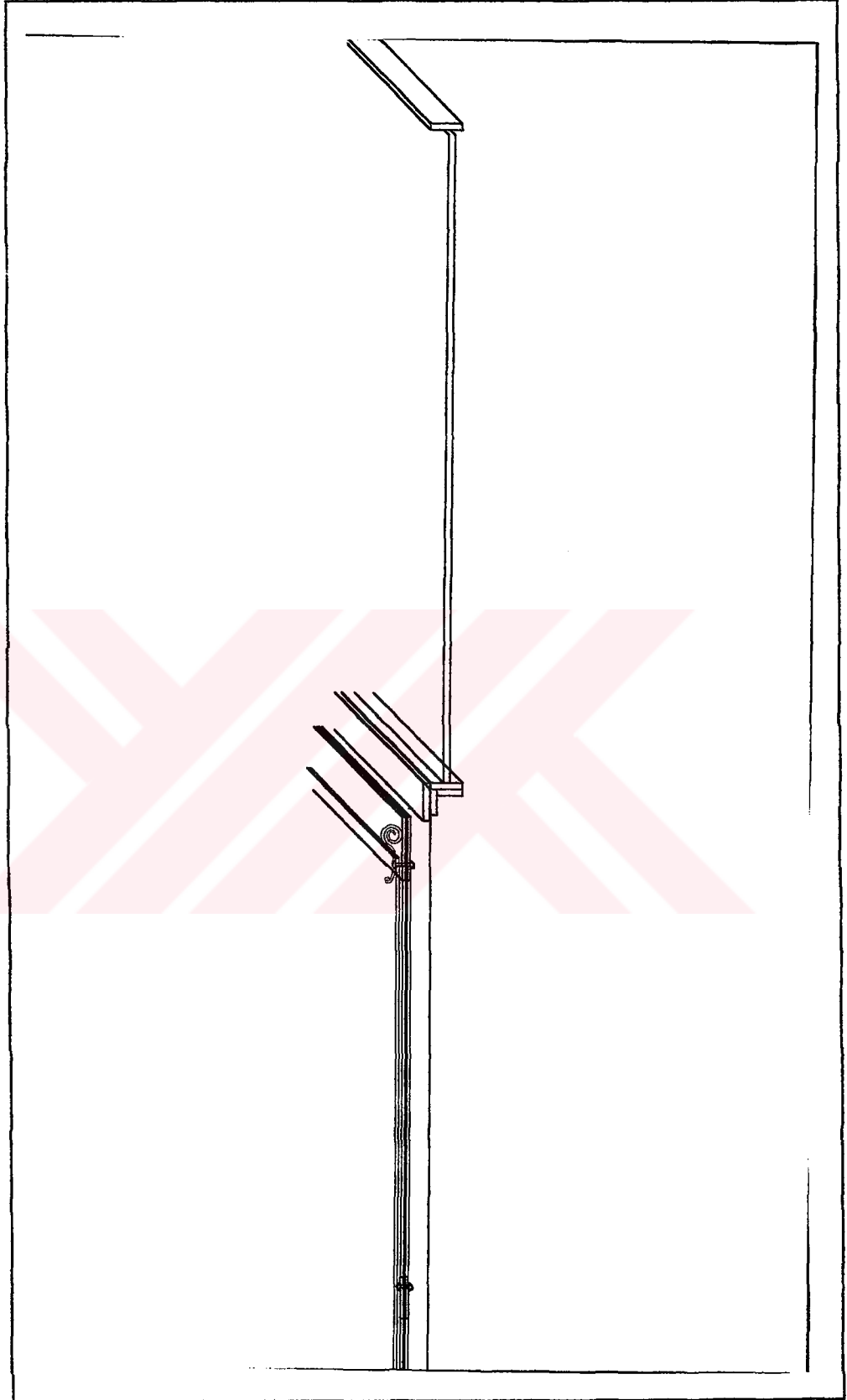


Figure 5.2.107 DM02 İzmir Caddesi No:1 - Details

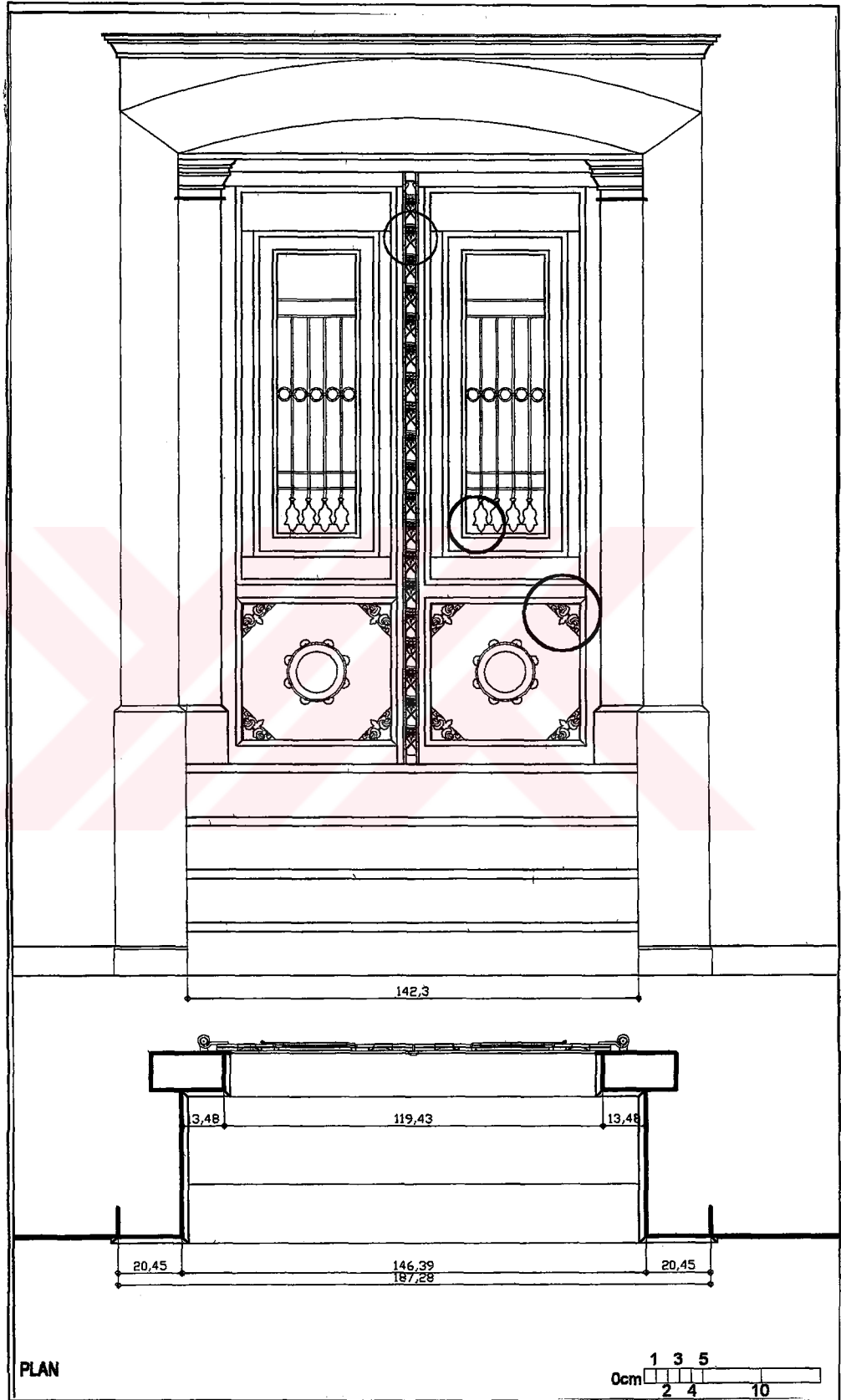


Figure 5.2.108 DM03 Fevzi Çakmak Caddesi No 40- Exterior Elevation and Plan

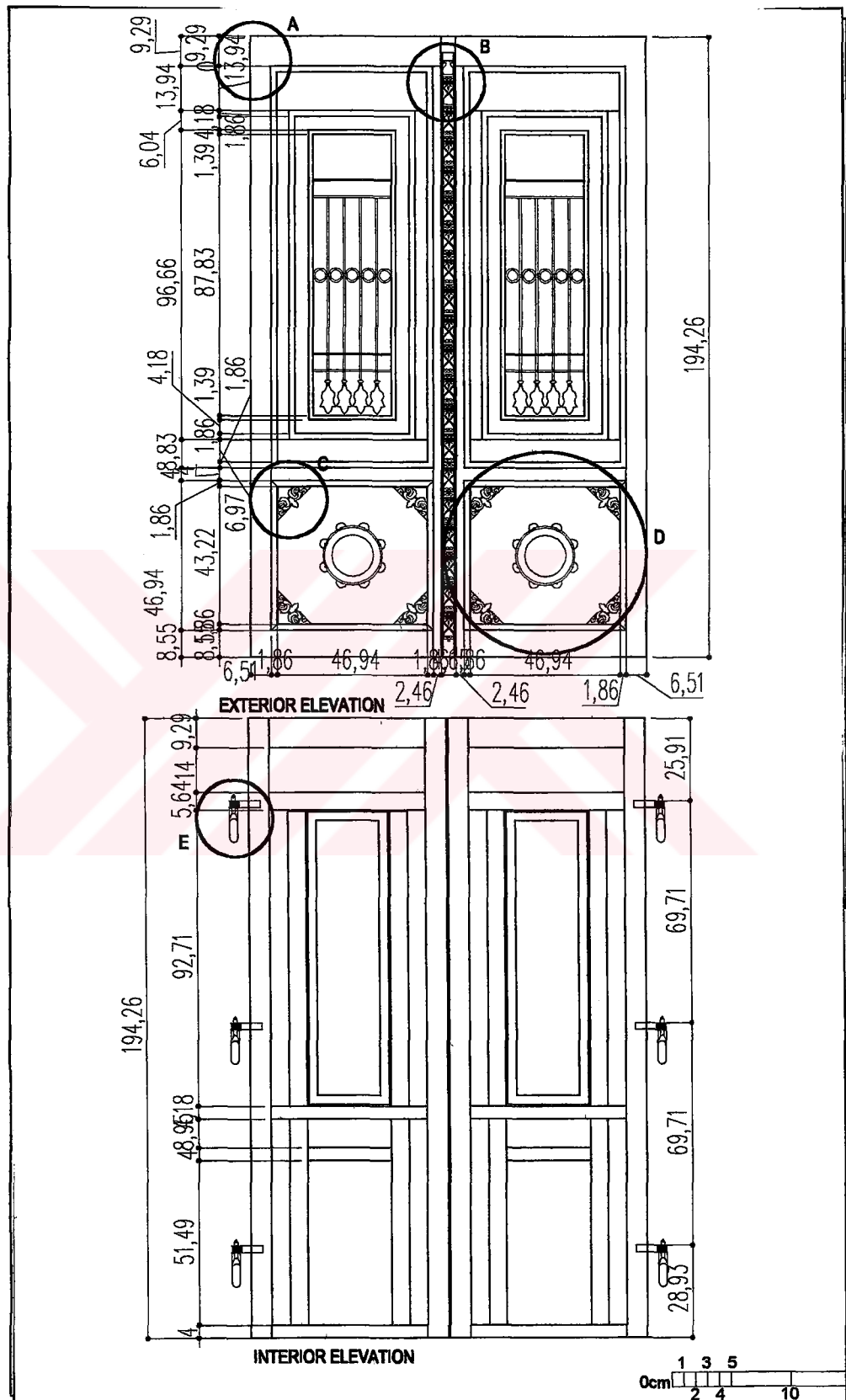


Figure 5.2.109 DM03 Fevzi Çakmak Caddesi No 40- Elevations

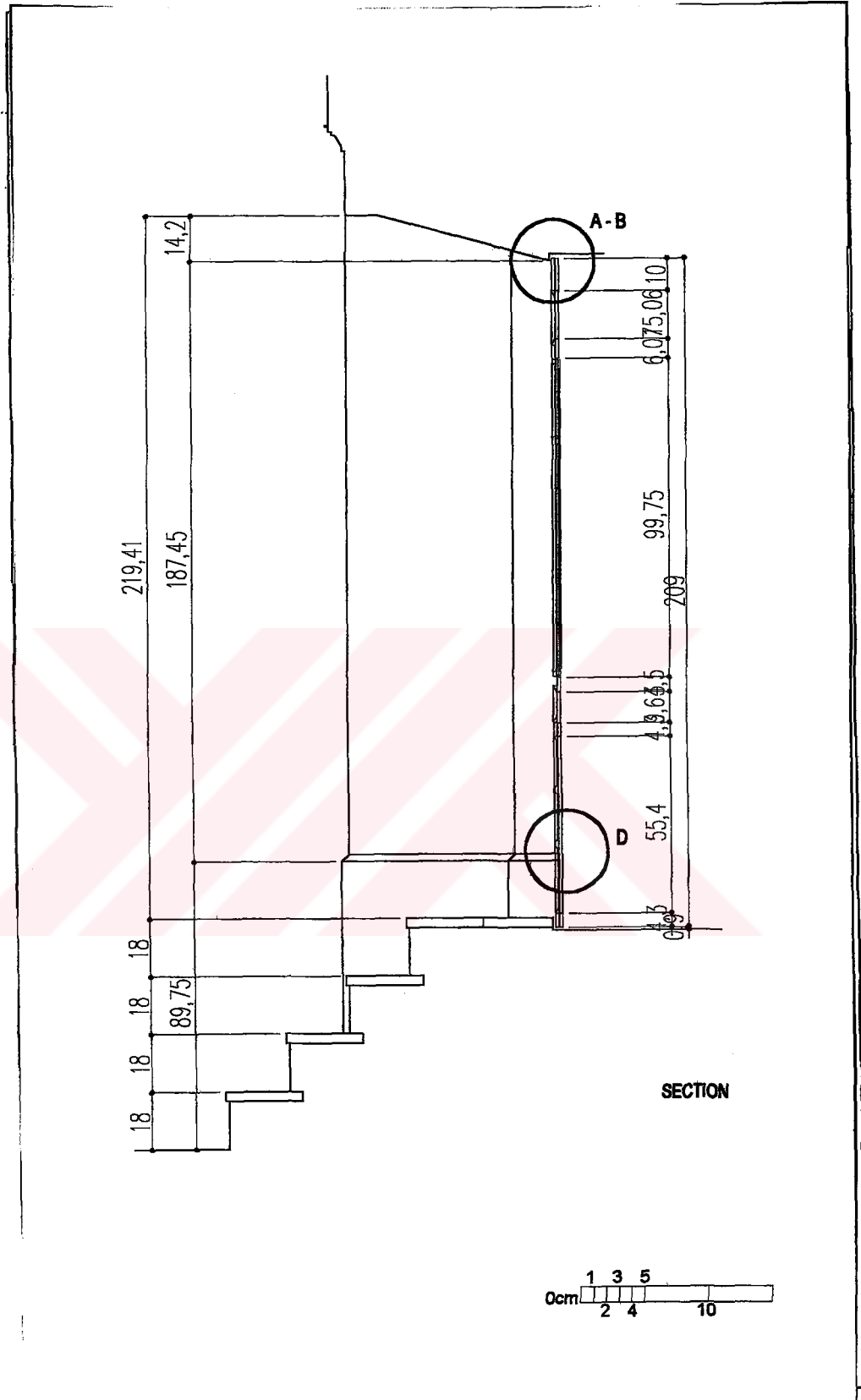


Figure 5.2.110 DM03 Fevzi Çakmak Caddesi No 40- Section

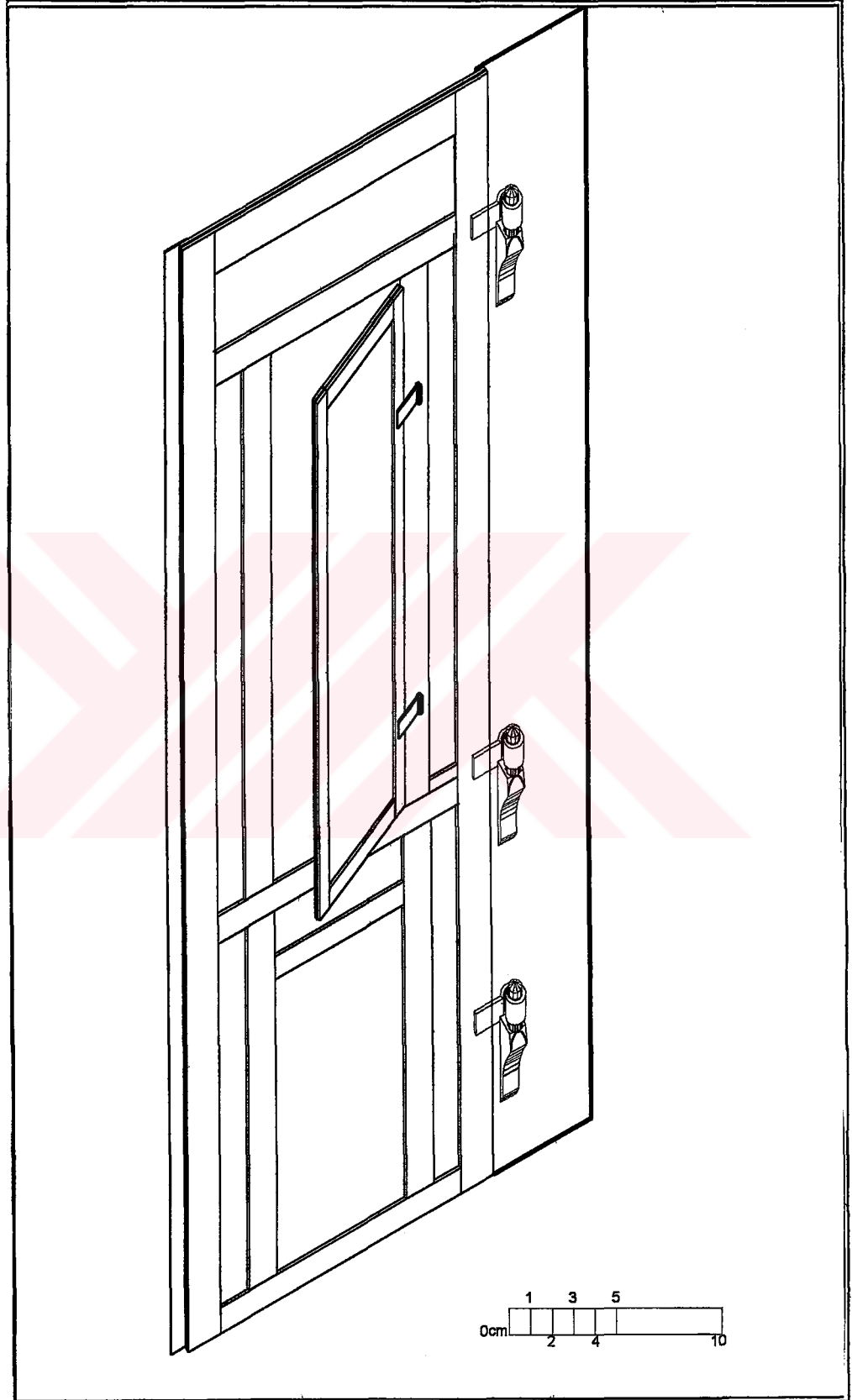


Figure 5.2.111 DM03 Fevzi Çakmak Caddesi No 40- 3D Drawing

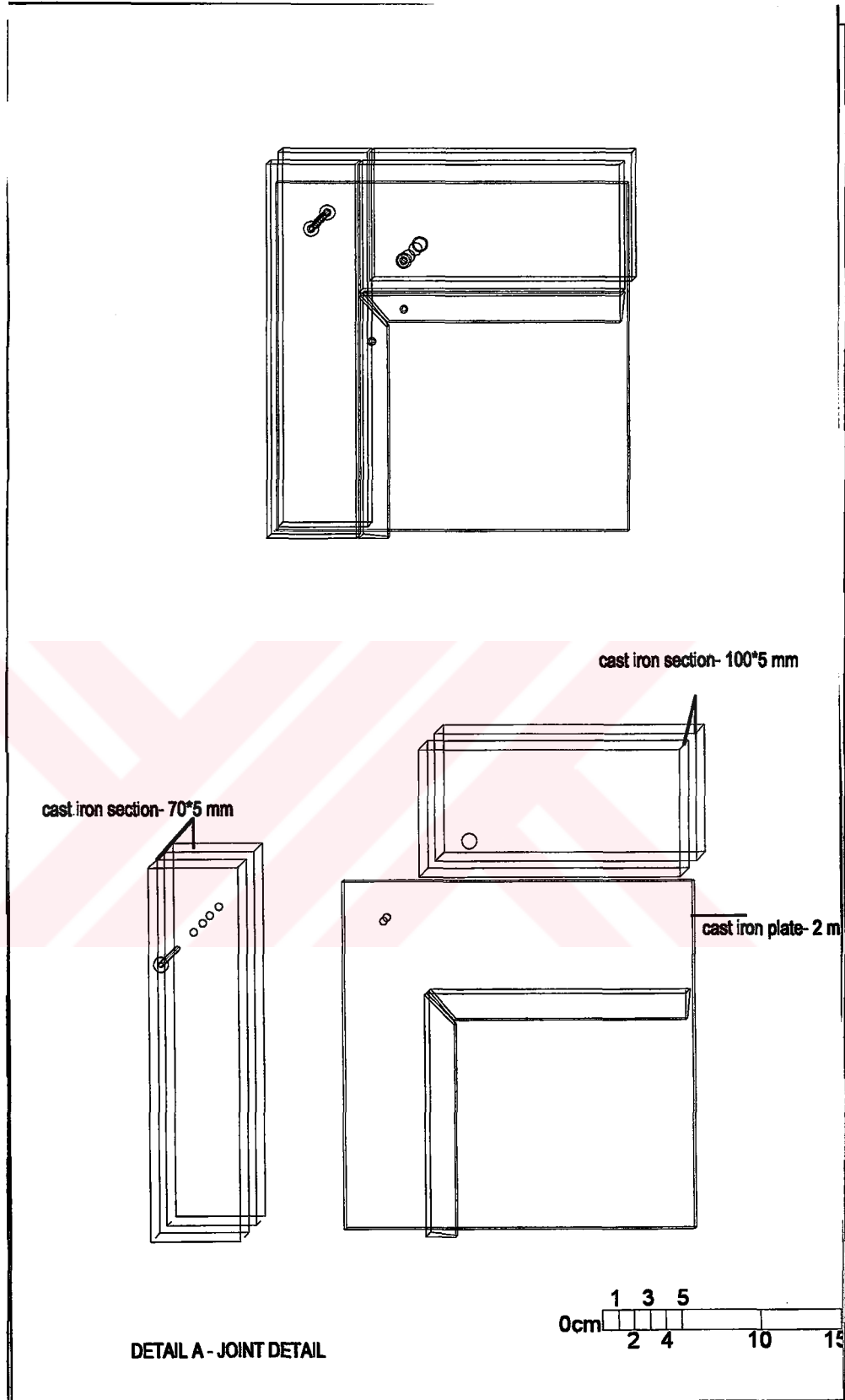


Figure 5.2.112 DM03 Fevzi Çakmak Caddesi No 40- Details







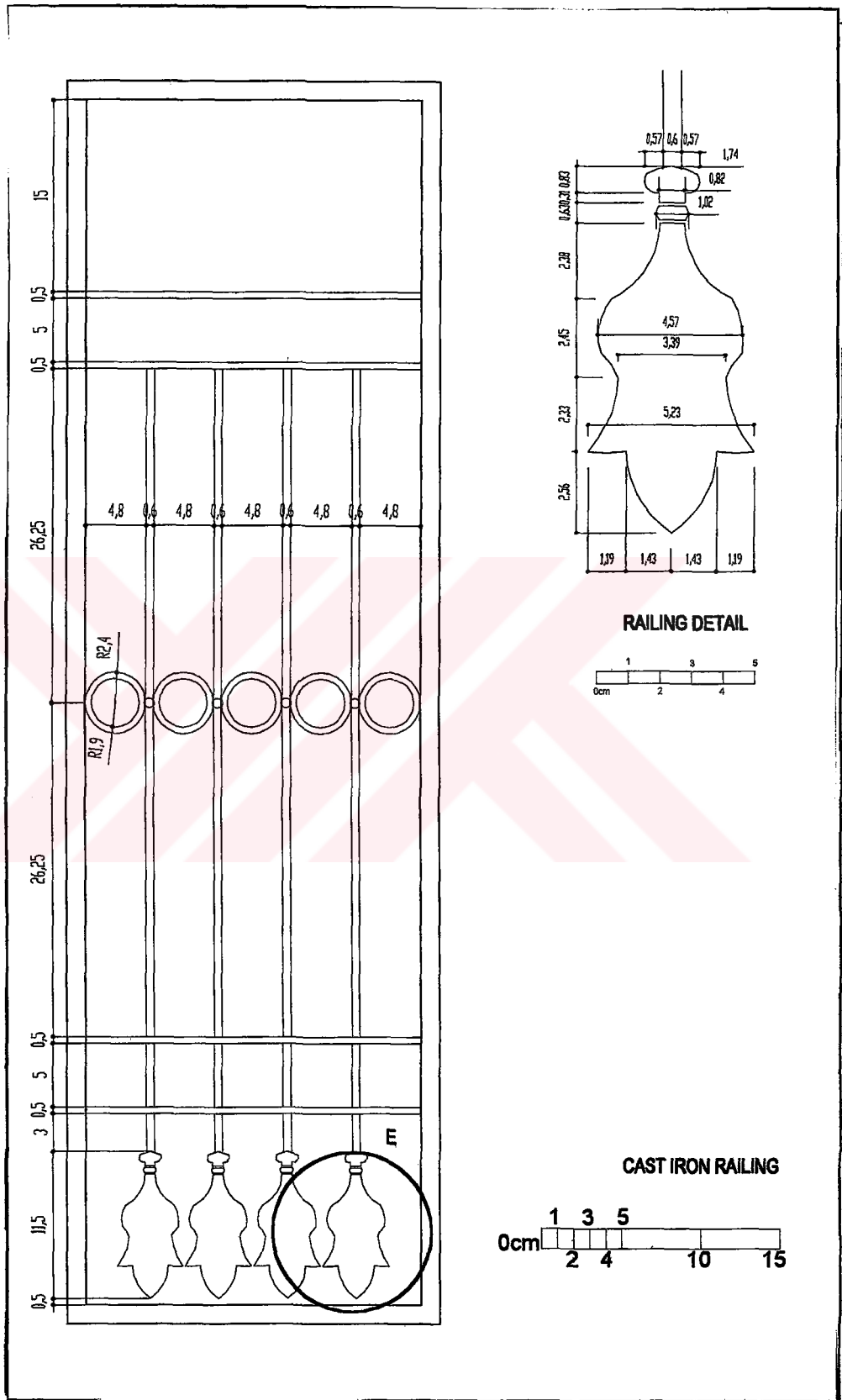


Figure 5.2.115 DM03 Fevzi Çakmak Caddesi No 40- Details

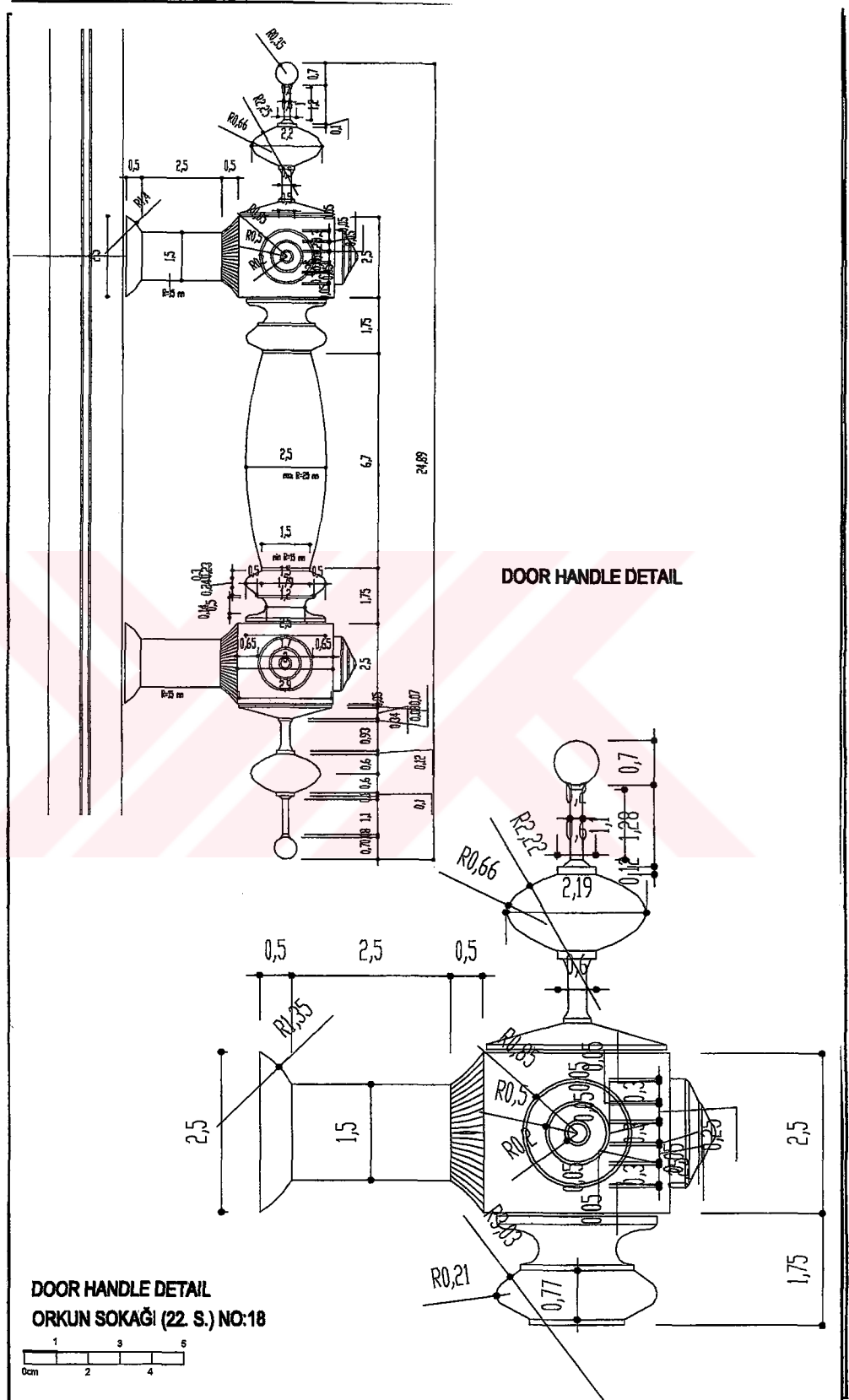


Figure 5.2.116 DM03 Fevzi Çakmak Caddesi No 40- Details

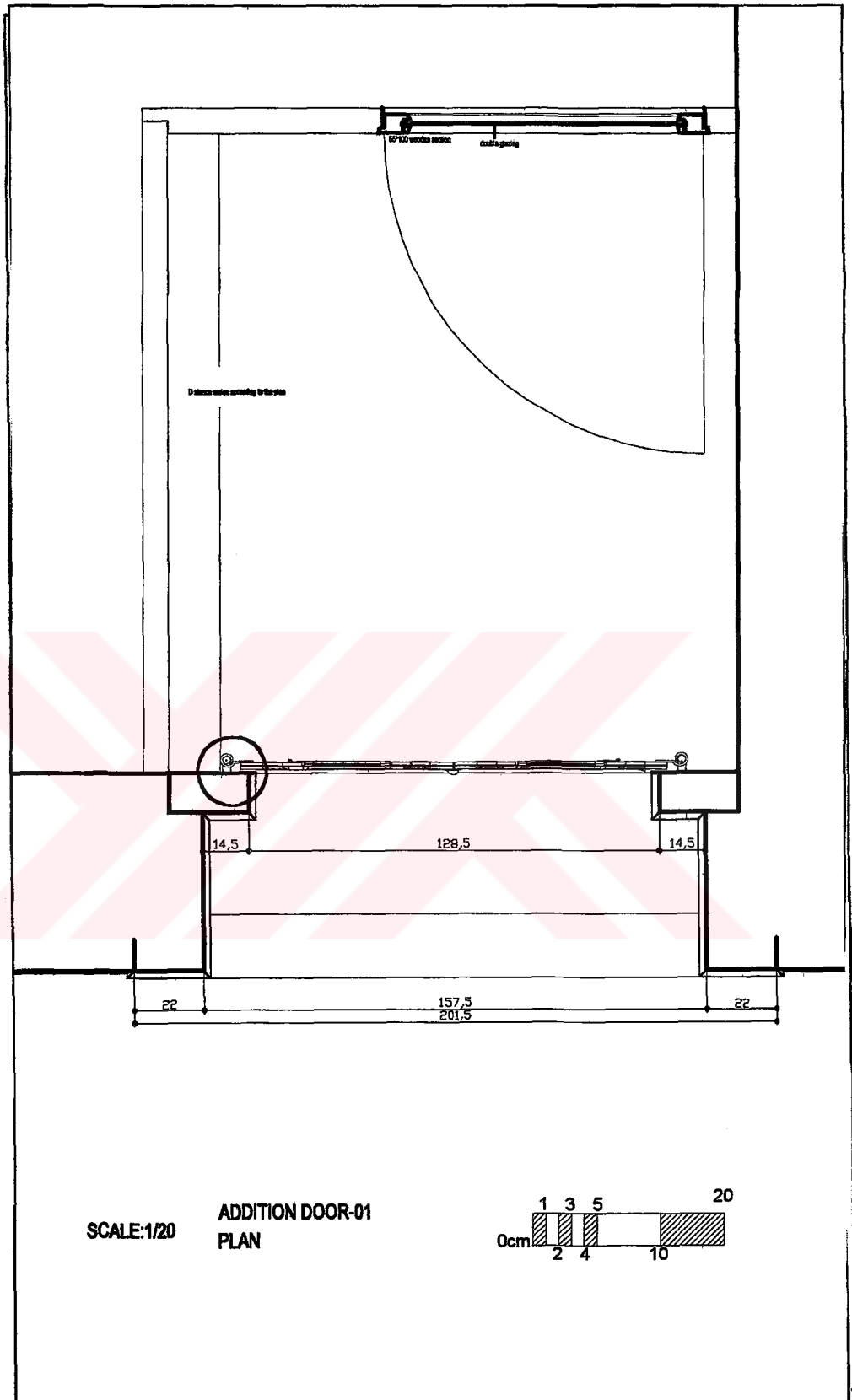


Figure 5.2.117 Wind break (Addition Door) Plan

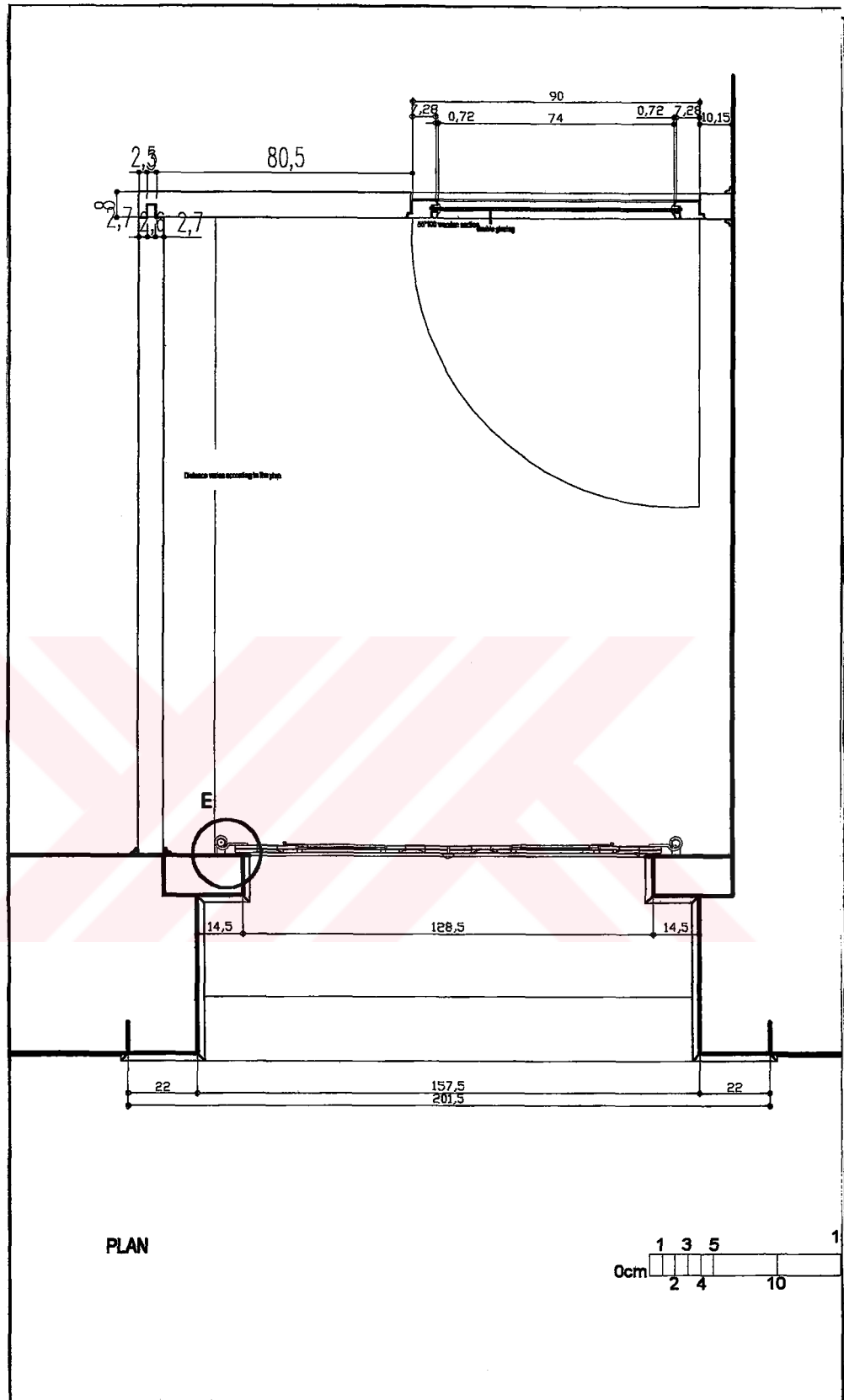


Figure 5.2.118 Windbreak (Addition Door) Plan

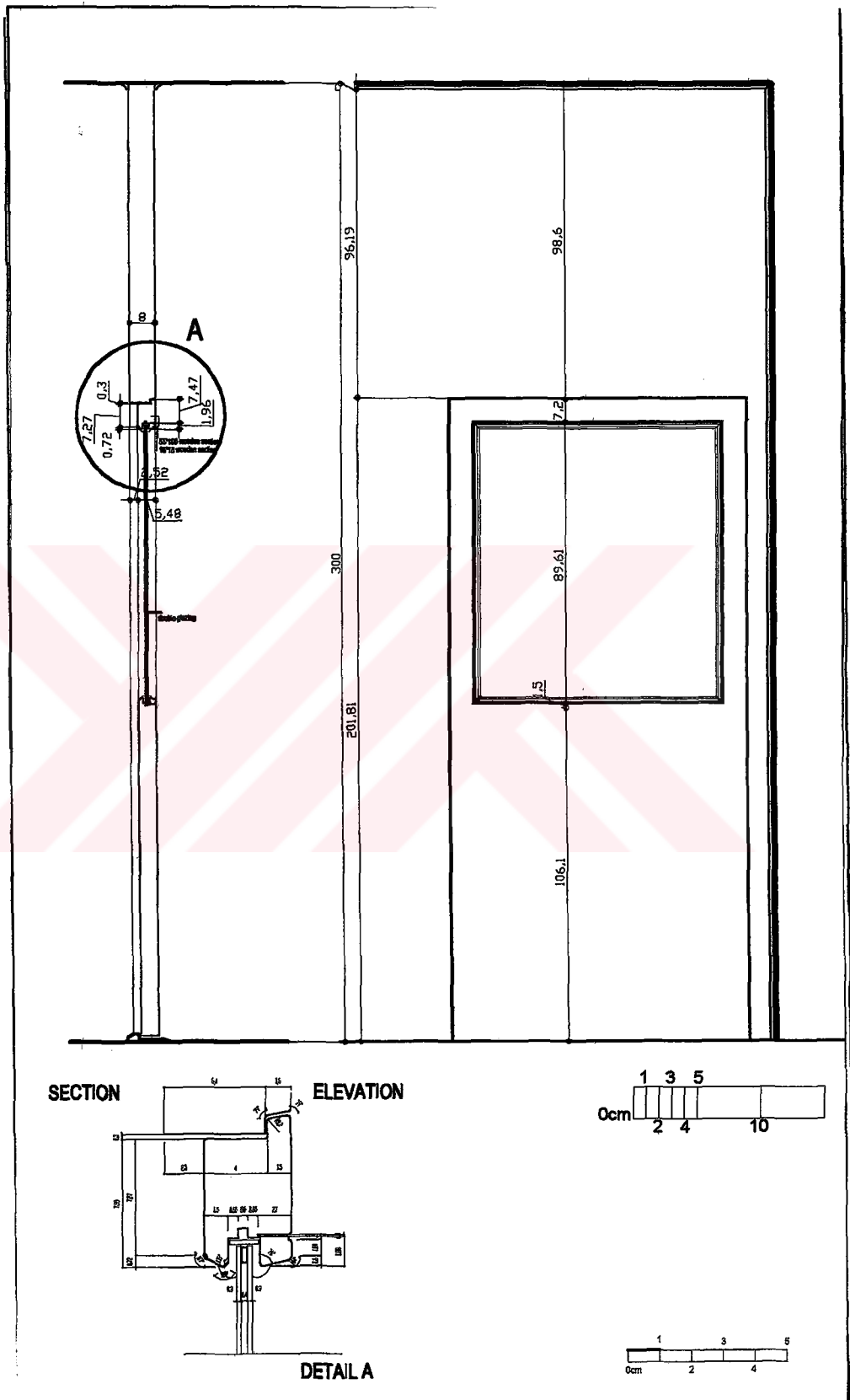


Figure 5.2.119 Windbreak (Addition Door) Section, Elevation and Detail

Caddesi No:11, Soylu Sokađı No:1 and Benel Sokađı No:27 have higher lower sections, while the ones in İzmir Caddesi No:28, 36, 40, 58, 60, Fevzi Çakmak Caddesi No:40, Sahil Caddesi No:13, Mesut Sokađı No:1 and Bodulgan Sokađı No:17 have a shorter lower section. (Figure 5.1.29 – 5.1.30) Check Drawings for further information. (Figure 5.2.108 – 5.2.119)

### 5.3 MAINTENANCE

A regular programme of inspection and maintenance is the most critical part of preserving a historic building. Especially if the building is not used, this step gains more importance.

Places where water could infiltrate are critical points to inspect. These points are roofs, gutters, basements, subsurface drainage system, if exist. Detecting the function of building elements like doors, windows, stove regularly is essential for the comfort of the dweller. Inspecting exterior materials as stone, mortar and plaster, and interior elements like Wood framing, flooring, timber trim, plaster will increase the life span of the building. In a traditional dwelling, it is necessary that a specialist check plumbing, heating, and cooling, electric systems.

During inspection, these should be looked for:

- Water damage: Stains, soft timber (rot), peeling paint, salt crystals,
- Signs of infestation: Droppings, dead insects, holes in timber,
- Anything unusual or different from your last inspection.

You may find it cost effective to hire a conservator architect for the inspection. Because of their specialized training, architects are skilled at catching problems early and can help prepare a prioritised preservation plan. Certainly, they are the best-qualified people to carry out the inspection of large, complex, abandoned, or neglected structures.

A long-term maintenance strategy should include planning and budgeting for regular maintenance work (like exterior painting or roof replacement) and for capital improvements. The cost of maintenance will always be less than that of a major preservation effort after a period of long neglect.

Careful housekeeping can greatly extend the life of building materials. Removing dirt from floors and other contact surfaces limits deterioration by abrasion. Keeping the building free of food waste reduces the likelihood of pest infestation. When cleaning, use gentle materials like plain water and soaps that don't leave residues.

Use housekeeping and maintenance tools and equipment carefully to protect building materials.

Avoid operations that might cause incidental damage. For example, a sharp metal tool used to remove stain can leave gouges in a stone step; metal tools can easily scrape finishes.

Written and photographic records provide valuable information for scheduling maintenance and improvements and for long-range planning. Keep accurate, complete written records of inspections, maintenance work, and repairs on site; photographs are always desirable. Include in the site records the name and manufacturer of any cleaning or maintenance products used. This information may provide clues for understanding future material deterioration problems.

When preserving your building is the main goal, every proposed alteration or improvement must be considered carefully. Consult with an architectural conservator when planning alterations or improvements, especially if the changes are being considered to solve specific problems, like a damp basement. The potential effect of a change on other elements and systems of the building must be fully understood. For example, installing central air

conditioning will not only change the environment of different spaces within a building but may have a significant impact on the building materials. Any change should be readily reversible to return the building to its original condition.

Disasters can have a devastating impact on a structure, sometimes even necessitating its demolition. Fire, flooding (from natural causes or plumbing failures), earthquakes, and other disasters can all cause significant damage. Planning for a disaster can help lessen its impact. Of course, these precautions should be taken and watched out by the governmental or local institutions.

At the very least, develop a plan to respond to fire. Early detection is critical. You may consider installing heat and smoke detectors. Traditional buildings may catch fire easily because of the timber elements used in the construction. Consider placing fire extinguishers in easily accessed places of the building.

Buildings and the materials they are made of are subject to a wide variety of problems and require constant attention. You can prevent many of these problems by careful planning, regular inspection, continuous maintenance, and good housekeeping. An architectural conservator cannot only work with you to resolve existing problems, but can also help with planning to prevent future problems.



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## **APPENDIX A**

### **HISTORY OF ESKİ FOÇA (PHOKAEA)**

Phokaia is one of the twelve-Ionian cities. Its inhabitants emigrated from Greece to Western Anatolia, and established Phokaia. The Phokaians had first settled between the Big Sea and the Small Sea, and spread during the Hellene and Roman Periods. According to some archaeological evidence, the first inhabitants of the area are the Aeolians who had lived in XI<sup>th</sup> century BC. The Phokaians were advanced in navigation. Phokaia was the first Ionian City to navigate to the far seas and establish a colony.<sup>1</sup>

In the second half of the XI<sup>th</sup> century BC, the Persian invasion started in Anatolia. The Phokaians strengthened and heightened the 2500 roman feet long citadel with the money that they took from the Spanish King, Artganthonius, for defence against the Persians. When the Persian commander Harpagos sieged their city in 544 BC. The Phokaians left for Chios on their ships but were not welcome in this island. Therefore, they went to Cynus- Corsica. Soon after establishing a city named Alarie. they suddenly returned and destroyed the Persian troop in Phokaia. Some have stayed in Phokaia and some continued to Alarie. In 419 BC, all the Ionian cities in Anatolia were left to the Persians. During this time, Phokaia has never lost its importance as a first class harbour. In 334B.C, The Macedonian Alexander gave an end to the Persian invasion in Anatolia and freed the Ionian cities. On the death of the Alexander, Phokaia stayed under the reign of the Seleucid and Pergamon Kings respectively. In 133, Attalos III left his

land to the Romans the Phokaians resisted at first but were defeated and had to remain under the Roman reign.<sup>1</sup>

After this time, the harbour of Foça lost its importance, and the inhabitants started to leave the city. After the split of Rome in 395 BC, Foça was left in the rule of the Byzantine Empire. In this time, citadel of Foça was in ruins, and she had become a village.<sup>1</sup>



## **APPENDIX B**

### **HISTORY OF YENİ FOÇA**

Yeni Foça is a small Aegean town, located to the north of the Gulf of İzmir. Today, it is accessed through a narrow road connected to the Çanakkale-İzmir highway. On the way, there is a huge complex of Iron and steel industry. Heavy vehicles carrying metal to this factory and to the harbour nearby use this road intensely. After the polluted air caused by the factory, suddenly, the voyagers pass a hill and face the clean air of Yeni Foça. By the help of these hills, and the distance, the town is kept away from all the negativity of a big city, which is still close enough to offer all its opportunities.

Today, the history of Yeni Foça is somehow hidden behind its namesake; Eski Foça. Many people, even those living in the new settlements of Yeni Foça think that it is a new town of a very recent history. There are many reasons to this. Firstly, the new settlements can be accessed without going in the historic town. Its name too is a very deceiving factor. Those who have visited the new settlements of the town and those who have just heard it being mentioned consider that it is established after republic. People visit Eski Foça to see its traditional pattern; yet, they show no interest in the more preserved pattern of Yeni Foça. In addition, with its harsher climate and relatively short tourist season, the town draws less attention than other sea towns in the area.



Many historians believe that Yeni Foça was established by the Genoese in the XIII<sup>th</sup> Century. From XIV<sup>th</sup> century onwards in all the official documents and quite a few of the maps, and during late periods most of them mention two Foça's. Heyd cannot give information as to when and by whom this new Foça was established. Yet, he says that all reference to Foça before XIV<sup>th</sup> century should be attributed to "Eski Foça".<sup>1</sup>

Although Heyd gives the date, XIV<sup>th</sup> century for the establishment of Yeni Foça<sup>1</sup>, Sartiaux says that it had been established before the alum mines were established. He tells that the Genoese have built a fortification near Foça and named it Phokaea Nuova -Yeni Foça. This shows that the bay of Yeni Foça has a strategic importance for trade at that time.<sup>1</sup>

In 1275, a treaty was signed between the Emperor Paleolog and the Genoese Republic; Michel Paleolog gave the duty of Phocaea Nuova to Genoese tradesman, Manuele Zaccario. The Italians had called the city Fogio, Fogho, Folyo and even Foio. There were rich alum sources in a mountain in Yeni Foça, which had been mined by the Greek until that time.<sup>1</sup>

The story of the establishment of the city is given by Ducas about hundred and eighty years after its probable establishment as a town. During this time, the armies of the Turkish Beylik were advancing continuously and they had reached the coastal section of the Aegean region. The first project of the city was a castle big enough to accommodate fifty miners and the mine owner. Manisa, Menemen (Mainomenos), and Kemalpaşa (Nympheum) were attacked by the Turkish armies. Nevertheless, just when the construction had begun, some of the Byzantinian population of these cities came to help the Latin for the construction. Consequently, a city big enough to accommodate the Byzantinians as well as the Latin was established. A Catalonian who had come to Anatolia during a military expedition in 1307, Muntaner, tells about the existence of a city with a citadel, with a population of more than 3000 Byzantinians doing alum mining. He gives the city name to be Fuylla.<sup>1</sup>

In 1296, the city was attacked and was destroyed. The records show that in 1298, just two years after the attack, the city has started to trade again. Heyd points out the short time needed for the city to be improved. The city was very prosperous as a result of the alum trade. The Zaccario family run the mines for a few generations.<sup>1</sup>

In XIII<sup>th</sup> and XIV<sup>th</sup> Centuries, the Venetian and the Genoese republics were the most influential European countries in the Byzantine Empire. With the reign of the Byzantine Emperor, Michel Paleolog, the Venetian dominion has ended. The Genoese trade has developed in a very short time with the decrement in the trade tax.<sup>1</sup>

Pirate ships were threatening the alum trade in the coast. Martino Zaccario (1314-1329), a ruler of the island, had been recognized for his success<sup>1</sup> in the protection of the trade routes, resulting in continuation of the alum trade and thus continuation of the importance of Yeni Foça.<sup>1</sup>

As a result of an agreement between the Genoese governors and Saruhan Bey, The Genoese accepted to pay an annual tax in return for the dominion of the two Foça's. This agreement was kept for a hundred and eighty years.<sup>1</sup>

Yeni Foça and Eski Foça were taken over by The Ottoman Sultan, Bayezid I, (1387-1402). After the Ankara War between Bayezid I and the Timurid, Emperor Timur has split the Ottoman Empire into small areas, and the Beylik in Anatolia were re-established. At this time, also the coastal colonies stopped to pay taxes. After this, Mehmet I has gained power and set ottoman power over the other Beylik and the coastal colonies again.<sup>1</sup> The commander of the Ottoman naval forces, Yusuf Paşa recaptured Yeni Foça in 1455 and Eski Foça in 1456. The church in the centre of Yeni Foça was converted to a mosque and the mosque was given the name "Fatih Camii".<sup>1</sup> After the domination of Istanbul, The Ottomans government made mass migrations to populate this new capital. From Eski and Yeni Foça too, some

of the population was moved to İstanbul, and in their places, Muslims Turks were located.<sup>1</sup>

When İstanbul was taken over, Ottomans had taken privileges on Galata, from the hands of the Genoese and started to collect tax from the Genoese ships coming to Galata. As a result of this, Genoese ships started to disturb Turkish ships, and they started to attack Black sea coastal cities as well. Ottoman Empire first drew the Genoese out of Black sea, and then took the control of Yeni Foça along with Midilli, Taşoz, İmroz, Semadirek, Enez, and Limni, in 1475.<sup>1</sup>

In the time of Mehmet II, Eski and Yeni Foça were under the Sancak of Manisa.<sup>1</sup> During the XI<sup>th</sup> century, the Greek and Turkish population of the city had increased. Piri Reis mentions the existence of Genoese tradesmen in the city until the XVI<sup>th</sup> century, while after this time there is no sign of them. He defines Bay of Yeni Foça as a safe port where big ships can enter too. He defines the best place to anchor to be the Uzunburun.<sup>1</sup> He is referring to Burunucu, as it is known today, as this long cape is still a convenient harbour for the fishers because it forms a good wave and windbreaker for the boats.

At XVI<sup>th</sup> Century, Chios (Sakız) Island was taken over by the Ottomans. Sadi Bey married the daughter of the priest of the island and brought seventeen families from Chios to Yeni Foça. They were settled to the southeast of the inner castle, which is called the Priest District (Papaz Mahallesi).<sup>1</sup>

In the XV<sup>th</sup> and XVI<sup>th</sup> centuries, the Muslims formed the majority of the population. However, this balance was disturbed a lot when two thirds of the Muslims male population was enlisted to the army, as non-Muslims were not accepted in the army.<sup>1</sup>

In XVI<sup>th</sup> century, a strong castle was erected in Yeni Foça, during the reign of Süleyman the Magnificent. At this time, Yeni Foça is an important connection

point for the east-west trade. Persian silk was brought to Yeni Foça, as well as Bursa, Halep, and from here, it was shipped to Britain, Spain, France, and other European countries.<sup>1</sup>

After the big earthquake of İzmir in 1688 and the following fire, which had swept most of the commercial buildings of the city, there was a big halt in the trading activity of the city. Especially the English tradesman started to look for another suitable port instead of re-establishing their commercial buildings and houses. Foça was suggested as a new commercial centre. Yet, the fact that the city did not have a suitable port or warehouses to store the goods, and that it did not have enough manpower to work in the ships, caused the important tradesman to give up on this project. The English Levant Company too, did not approve on the centre to be moved to anywhere else than İzmir. It was easier to protect their ships in this city than in anywhere else. Its port was much protected as a result of the tight entrance and the castle situated at the mouth of the gulf.<sup>1</sup> Yet, the fact that it was suggested for the replacement of a big harbour town shows the importance of Yeni Foça as a harbour.

By the end of the XI<sup>th</sup> century, Foçateyn is a sub-province connected to İzmir, Sancak of Aydın Province. At this time, it is named as Foçateyn as it includes both Eski and Yeni Foça. The mayor was Greek, yet the "Kaymakam" was a Turkish Governor. Yeni Foça remained the centre of the sub-province until 1893. After this date, Foçateyn became a "kaymakamlık", and Eski Foça was the centre this time, as it was close to the salt production areas. At this time, Yeni Foça was still a lively harbour and trade town. It was an important trade centre where textile exchange took place between İzmir and the Aegean Islands. In İzmir Caddesi there were a number of textile shops.<sup>1</sup>

When we search for the population statistics, we see many conflicting information. Yet we can conclude that, towards the end of the nineteenth

century, Yeni Foça was a fast growing town. While its population was given to be 1500 in 1835<sup>1</sup>, Cuinet gives the population of Yeni Foça to be 12.000 in 1891. He claims seventy one percent of the population were Greek, and twenty four percent of it was Muslim.<sup>1</sup> Texier, who had worked on the population of the town, gives the population of the town to be between 4.000-5.000 at about the same time. He says that three -fifth of the population was Greek and two fifth was Turkish. He also gives information on the economy of the town. He says all of the population was dealing with fishing and navigation.<sup>1</sup>

During Balkan Wars, immigrants from the Balkan were settled in the area. This caused a change in the population of the town.<sup>1</sup> After the First World War, Foça was occupied by the Greek armies in May 1919, and was freed in September 11, 1922.<sup>1</sup> After the Independence War, all the Greek population left the town, and immigrants from Pirveşte were settled in their places. This caused major change in the living conditions and economy of the town.

The town was in a very bad condition after the war. Especially due to vandalism, many Greek buildings were destroyed. The new Turkish Government tried to repair these houses in order to accommodate the new settlers, but the fact that the construction materials were very expensive in the region, and that labour was not sufficient has caused these attempts to be unsuccessful. The immigrants were not willing to continue vine-culture. They started tobacco production in the area. This was the type of agriculture they used to do back in Greece. The land proved adequate for this production so tobacco production continued. In 1923, Yeni Foça was within the sub-province, Foça. The centre of the sub-province was Eski Foça. In 1924, Foça-Yeni Foça region became a military zone due to its strategic location. Entrances to the area were strictly controlled. This caused migrations from the town. The trade activity ceased. This situation has ended in 1952; however, the town could never become as active as before.<sup>1</sup>

Yeni Foça had been a sub-district of Eski Foça until 1972. After this date, it has become a municipality. However, Eski Foça is still the centre of the Sub-province. It has three villages; Çakmaklı, Horozgediği and Kozbeyli. There is no significant increase in the local population. The population of the Foça sub-province in 1970 was 2.323. Actually, after this date, there is a decrease

in the population of the town. In 1970, population of Yeni Foça was 2275(İzmir il yılığı); in 1975, 1536; and in 1980, it was 1750.<sup>1</sup>

Today, Yeni Foça is developing to be a tourist town. Actually, Foça had been the summer housing and weekend visiting site starting from very early dates; 1930's. Although the major intensity was towards Eski Foça, especially because it is very close to Karşıyaka, Yeni Foça too is getting her share from these daily and seasonal visitors increasingly. There are many empty buildings in the protected area, as people coming for holidays prefer to stay in the new developed cooperatives just outside the town, between the historic centre and Burunucu.

Still, the town has tourism potential, and this might cause a drastic increase in the population. The pressure of the tourism has started to show its effects in the texture of the town, especially in the commercial areas. Because of its name, Yeni Foça is thought to be a very new settlement by the visitors. The intense loss of the traditional characteristics in the commercial area, where the only contact of the visitors with the traditional town is, supports this wrong belief. Although the majority of the buildings are preserved in the area, the traditional characteristics are usually hidden behind big signs of shops in the commercial are, and wrong interventions of the façade.

## ENDNOTES

- <sup>1</sup> Sartiaux, W.; «Foça tarihi», p. 7  
<sup>1</sup> Sartiaux; ibid, pp7-12  
<sup>1</sup> Sartiaux; ibid, p.12  
<sup>1</sup> Heyd, W.; “Yakındoğu ticaret tarihi”,1975, p.517  
<sup>1</sup> Heyd, W.; ibid, 1975, pp.517  
<sup>1</sup> Sartiaux; ibid, p.8  
<sup>1</sup> Heyd, W.; ibid, 1975, p.518  
<sup>1</sup> Heyd, W.; ibid, 1975, pp.491-492  
<sup>1</sup> Heyd, W.; ibid, 1975, p 493-497  
<sup>1</sup> Heyd, W.; ibid, 1975, p. 519-520  
<sup>1</sup> BB  
<sup>1</sup> Sartiaux; ibid, p.12  
<sup>1</sup> Uzunçarşılı, İsmail Hakkı; Osmanlı Tarihi v.I, p. 43  
<sup>1</sup> Uzunçarşılı, İsmail Hakkı; Osmanlı Tarihi v.II, pp. 2-18  
<sup>1</sup> Uzunçarşılı, İsmail Hakkı; Osmanlı Tarihi v.II, p. 18  
<sup>1</sup> Uzunçarşılı, İsmail Hakkı; ibid, p. 467  
<sup>1</sup> Uzunçarşılı, İsmail Hakkı; ibid, p. 43  
<sup>1</sup> Bilsel, Cana, “New building in a historical setting as an urban design problem: The case of Yeni Foça”, p.44  
<sup>1</sup> Piri Reis, “Kitab-I Bahriye”, p.154  
<sup>1</sup> Bilsel, Cana, ibid, p.44  
<sup>1</sup> Bilsel, Cana, ibid, p.44  
<sup>1</sup> Ülker, Necmi, “İzmir Şehri Tarihi: 17. ve 18. yüzyıllarda” pp.27-28  
<sup>1</sup> Ülker, Necmi, ibid, pp.27-28  
<sup>1</sup> Bilsel, Cana, ibid, p.44-45  
<sup>1</sup> Stewig, Reinhardt, “Batı Anadolu bölgesinde kültür gelişmesinin ana hatları”, pp58-59  
<sup>1</sup> Yurt Ansiklopedisi; p.4273  
<sup>1</sup> Yurt Ansiklopedisi; p.4273  
<sup>1</sup> İzmir il yılığı, p. 73  
<sup>1</sup> Yurt Ansiklopedisi; p.4301  
<sup>1</sup> Arı, Kemal; ibid, pp. 47-48  
<sup>1</sup> İzmir il yılığı, 1973, p.74  
<sup>1</sup> İzmir il yılığı, 1973, p.126  
<sup>1</sup> İzmir il yılığı, 1973, pp. 4-6  
<sup>1</sup> Ege Ulucu

## **APPENDIX C**

### **GEOGRAPHICAL INFORMATION**

Yeni Foça is situated in the western shores of Anatolia, within the boundaries of the province, İzmir. It is 22 km. to the north of Foça and 70 km. to the north of the city centre. (İzmir il yıllığı. p.126) It is situated to the south end of the Çandarlı Gulf. It has a well-protected bay, just in between the open sea and the gulf. On the contrary, the Bay of Foça faces the open sea directly. There are many small bays in between Foça and Yeni Foça, most of which belong to the military. There is a mountain called Şaphane in between Eski and Yeni Foça. It is a destroyed cone of an ex-volcano. This is the mountain where alum mines are located. There were two stone quarries on this mountain, from where the building stone had been carried. Today, both of them are closed as stone quarrying gives damage to the natural site.

This region is the first group earthquake zone, and there were active faults for thousands of years. Some important earthquakes that might have affected the traditional buildings in Yeni Foça are given. In 1867, an earthquake caused 2500 houses to collapse. Some islands in the Ayvalık shore had slid. This earthquake had caused serious damage in İzmir, too. In 1880, an earthquake, whose centre is thought to were near Menemen, had affected the area, causing serious damage in Menemen, Karşıyaka and Bornova. In 1895, again in Menemen, a serious earth movement had caused damage and water sprung from the cracks on the earth. In 1939, there had been an earthquake centred near Dikili, which had influenced Yeni Foça too, according to the information gathered from the elderly of the town. There



was no damage in the town, but a few minor cracks due to the earthquake jerks.

According to the source, the owner of a three-storied house in İzmir Street, who was a mason, has pulled down the third story of his house, suspecting the strength of his building against earthquakes. There are no three storied houses in Yeni Foça today, apart from some houses with basements. However, the basement floor level is below the street level and the floor height is low in these buildings. There were two earthquakes in 1949 and 1969. The 1949 earthquake had caused minor damage in Yeni Foça, while the latter gave some serious damage especially in the villages. (İzmir il yillığı, 1973 p.4-6) Today, according to the inhabitants, the unoccupied and damaged buildings collapse more after effective earthquakes, like the June 2000 earthquake of Adapazarı, which had affected the Aegean coast as well.

## Appendix E

### Technical DATA

#### How to Paint

##### Preparing the Surface for the Paint:

- Check the cast iron surface carefully for any sign of rust. Unpainted surfaces will most likely have some sort of rust. When you find rust, see items IM03, IM04, IM05 before painting.
- Prepare the surface to receive the paint according to the manufacturers recommendations.
- Each coat of paint should be inspected and found satisfactory before the next coat is applied.
- Remove any residue from the surface; like dirt, dust and other foreign substances. If there is no rust, use simple brush to clean dust.
- Remove any materials that will not be painted, before surface preparation.
- You may have to clean the surface in between the coatings.
- Rinse the cleaned surfaces with clear water and allow to dry thoroughly.
- Before painting starts, clean the space with brooms, remove excessive dust
- Do not sweep the area just after or during application. If you need to make any cleaning, use a vacuum cleaner.
- Keep the surface to be painted or coated clean, dry, smooth and free from dust and foreign matter that would adversely affect the paint or other coating's adhesion or appearance.

### Preparation of the Paint:

- Paint and other coating materials should arrive at the application site ready for application. Materials for tinting and Thinning should be kept in their original containers.
- Paint and other coating materials should be mixed, thinned and applied in accordance with the manufacturer's directions.
- Materials should not be thinned unless the manufacturer specifically recommends to do so. Materials not in use should be stored in tightly covered containers.
- Containers used for the storage, mixing and application of paint and other organic coatings should be maintained in a clean condition, free of foreign materials and residue.
- Unless the manufacturer recommends otherwise, paints and other organic coatings should be stirred before application, to produce a mixture that is of uniform density, and be stirred as required during application.
- Surface films should not be stirred into the materials. Such film should be removed and, if necessary, the material be strained before use.
- Shaking to mix some materials is permitted by some manufacturers, but shaking some types of paint will introduce air bubbles that will retain in the applied coating and spoil the finish. Strictly, follow the manufacturer's advice.
- You may have to use a system of materials in combination to form a satisfactory application. Preferably, you should use a primer before the application of the paint you have chosen. Primers are paints or coatings, which were formulated for application to bare metal surfaces as a base for succeeding coats. Using rust-inhibitive primers will protect the metal from further corrosion as well.

### Keys to Application of the Paint

- High standard workmanship is important. If you have no experience in painting, find a professional who is known for his good skills in the area.
- Keep the brush clean and in proper condition.
- Apply the material evenly and uniformly, under adequate illumination.
- Cover the surface completely. It should be smooth and free of runs, sags, clogging and excessive flooding.
- Completed surfaces should be free of brush marks, bubbles, dust and other imperfections.
- Use the number of coats recommended by the manufacturer for each particular combination of use, substrate and paint or other organic coatings as minimum number.
- When properly applied, recommended number of coating should produce a fully covered surface.
- When stains, dirt or undercoat show through the final coat of paint, the defects should be corrected and the surface covered with additional coats, until the paint or coating film presents a uniform finish, colour, appearance and coverage. When stains, dirt and other imperfections show through a clear coating, the coating and the offending imperfection should be removed and the cleaned area recoated.
- Paint applied and the rates of coverage sufficient for the dried film thickness of each coat should not be less than that recommended by the manufacturer.
- Give special attention to ensure that edges, corners, crevices and exposed fasteners receive a dry-film thickness equivalent to that on the flat surfaces.
- The first coat of paint should be applied to surfaces that were cleaned, pre-treated, or otherwise prepared for finishing, as soon as it is practicable to do so after the surface preparation and before it can begin to deteriorate.
- At the completion of the application process, paint and other organic

coatings should be examined. Damage found should be touched up and restored so that the painted or coated surface is left in an acceptable condition.

#### Application of the Paint:

Apply the paint according to the recommendations of the paint manufacturer and the points that follow:

- Keep paint in well-ventilated single space. Do not store in closets or other small, confined locations.
- Remove oil and solvent soaked waste from the building at the end of the work.
- Take precautions to avoid the danger of fire.
- Apply paint when the temperature of the surface to be painted and the surrounding air is between 7°C and 35°C, unless the paint manufacturer's recommend otherwise.
- Do not apply the paint in rain, fog, or mist, or when the relative humidity exceeds 85%.
- Do not apply paint on damp or wet surfaces.
- Do not apply paint on extremely hot or cold surfaces.
- Avoid painting surfaces exposed to the hot sun.
- Lightly sand between each succeeding coats, especially paints that have a gloss finish. High-gloss paint should be sanded between coats with very fine grit sandpaper. Remove dust after each sanding to produce a smooth, even finish.
- Allow sufficient time between successive coatings to permit proper drying. A minimum of 24 hours is required between interior coats, 48 hours between exterior coats.
- Do not recoat surfaces unless previous coat has dried, until it feels firm, does not deform or feel sticky under moderate thumb pressure, and the application of another coat of paint will not cause lifting or loss of adhesion of the undercoat.

- Make the edges of paint adjoining other materials or colours sharp and clean, in straight lines, without overlapping.

#### Points to be Careful about:

- Applying fewer than recommended number of coats can result in failure to cover surface, in failure to cover surface, and in the showing of underlying faults through the paint.
- Selecting incompatible paint system products will lead to failure. Prefer to use the products of the same manufacturer.
- Use good quality paint.
- Remove old paint that is thicker than around 0.3mm thick. Thick undercoats can cause new coats to crack or to have a rough surface.
- Apply proper application methods or it will result in failure.
- Failing to require that a proper number of coats are applied can produce a coating through which the substrate is visible, or which does not protect the coated iron.
- Applying paints to damp or wet surfaces can cause them to adhere poorly and form blisters.
- Applying paint when the humidity exceeds the level recommended by the manufacturer can cause them to dry slowly, not to adhere or form blisters.

#### During Application:

- Ventilate spaces properly when working in enclosed spaces. This protects the workers, helps control humidity, and promotes the proper drying of paints.

#### After Painting

- Reinstall the wing.
- Repaint the element with short intervals following the steps in item. The paint is likely to deteriorate under outside weather conditions and the cast iron can get water through tiny cracks in the paint, and will rust.

## How To Detect The Type of the Insect

Hardtimber that is commonly used in the area is not affected much by insect attack. Yet, as the timber ages and especially if it is kept in bad conditions, its liability to be attacked by insects increases. (Berry 1994,14) Detecting the type of the insect and the severity of the infestation is important to determine the best treatment possibility. (Berry 1994, 69)

**Common Furniture Beetle (*Annobium Punctatum*):** It attacks all saptimber and softtimber. If the timbers are well ventilated, infestation is only moderate severity and low activity. If there is a severe active infestation, this shows that there is a dampness problem. Before any treatment, source of dampness has to be eliminated. Unless the timber sections are small and damp, structural weakening is rare. (Berry 1994, 11) This is the only type of insect that could be detected during the site survey.

**House Longhorn Beetle (*Hylotropes Bajulus*):** It is usually found in roof timbers. It attacks saptimber of softtimber timbers and cause structural weakening. Damp conditions have no effect on the infestation.

**Deathwatch Beetle (*Xestobium Rufovillosum*):** It is mostly seen in large dimension hardtimber timbers, but it may spread into adjacent softtimber timbers. The infestation is more liable to be seen and will be rapid under damp conditions and where there is fungal decay.

**Lyctus Powderpost Beetle (*Lyctos Brunneus*):** It reduces the saptimber of some species to powder mass in a few years. Hearttimber is immune. It attacks chestnut as well, which is commonly used in the area, but after 10-15 years, hardtimbers including chestnut are immune

## How to Detect Rot

**Wet-rot:** It has two types; Brown rot and white rot. If the timber is infected by white rot, it is fibrous and is pale in colour. If it is infected by brown rot of the wet rots, it is cross-cracked in cube-like shapes and is brown in colour.

**Dry rot:** It has only one type; brown rot. This type too causes cubical cracking. The cubes in this type are larger, 25 mm<sup>2</sup> or larger than other brown rots. Dry rot can spread through porous materials in older properties due to its higher alkaline tolerance.

## How to Cure Rot

### Treatment

The first step of treatment is to eliminate the source of dampness. Before this, no precaution taken or treatment applied will be ineffective and just a waste of time. See item (IW03) for the possible sources of dampness.

Once the source is eliminated, the second step is to dry the building fabric. After this, the rate of progress of decay will decline drastically and will stop completely once the moisture content falls below the necessary moisture content for the fungus to grow (22%). In order to prevent any further decay from the time of the inspection, it is essential that drying is achieved rapidly. Rapid drying can be achieved with proper ventilation and heating. If possible, take extra ventilating and heating measure for the process. Drying windows, doors and shutters is easy but some extra measures may be needed for the other sections of the building.

Where the ventilation possibilities are limited, consider removing a floorboard at each side of the room temporarily will help air flow. This may be necessary



for roof and basement. All doors and windows must be left open, including the connection doors. Chimneys should be unobstructed. Raising the heating level temporarily will speed the drying of the timbers. However, without proper ventilation it may not help. Water that has evaporated from wet surfaces should be allowed to escape through proper ventilation. Gas, coal and paraffin-burning devices require adequate supply of air for efficiency. Improper air supply in enclosed spaces will reduce combustion and cause carbon monoxide accumulation. This is a lethal gas.

When drying process will take time, you may consider using preservative. You should treat the dry timbers 500 mm around the infected ones and those near to masonry. Yet, there are some problems to this treatment. Water based fungicide wets the timber and thus delays the drying time. Another problem is that, it has very little effect on damp timbers. The effect is only on the surface. You should know that the fungicide may hide the signs of infection.

It is not recommended to delay drying. For hearttimber, a few years pass before decay process to start. However, for sap timber, time for decay to start may only be a few weeks.

If no decayed timbers are detected, and if the drying process can be completed rapidly, the above process will be enough as precaution (up to 8 weeks). If decay was detected, determine the type of the rot as stated in item (PW09).

If it is dry rot, carry out a detailed survey to identify the affected masonry and timber. If the timber is structurally weakened, replace the timber as stated in the relevant window details. The new section should be pretreated with preservative. If the decayed timber is sound enough for its function, there is no risk to keep it in place if it is kept dry and is treated with a fungicide.

If there is a risk of consistent dampness, treat the timber sections by a preservative for fungus; especially timber shutters and lower sections of doors.

## How to Fight Insects

Determine the type of the insect. If you can definitely detect the type(s) of insect that are present, proceed. If you have no idea of the type of the insect or you are unsure, consult an expert. In addition, if the insect you have detected is Lyctus Powderpost beetle, you should consult an expert, as there may be structural harm in the window and within other timber components of the building.

A preservative treatment can be applied only if the insect is active or there is a significant risk of activity. (Berry 1994, 67) If the insect is active, there are fresh holes and the damage is widespread, preservative should be applied to all the effected area. If it is not, it should be applied to the area covered by the holes and 300mm beyond. If the above conditions are not present, no treatment is necessary. Only, there are two conditions where treatment should be applied even if there is no insect activity. If the timbers are subject to persistent dampness or there is a risk, and if there is little chance of further inspection. (Berry 1994, 68). Unused buildings and buildings that are used seasonally are considered in this category. In addition, in Yeni Foça, there are many buildings whose owners are old couples or single old people, who cannot maintain the building regularly. Such buildings should be considered under the same category.

When you detect an insect activity in any part of the building, make sure to detect every timber component of the building. Check the roof and the basement very carefully as these areas are very liable to remain damp and

even in used buildings, they are not under continuous monitoring. In cases where you cannot see the floor beams and if there is sign of insect in the floor boards

There are different treatment suggestions according to the type of the insect and the severity of the infestation. Before explaining these treatment suggestions, you should read the properties of the different treatment types. In addition, reading application methods and necessary precautions is vital before any application.

Liquid treatments penetrate into the timber and form a persistent layer of insecticide in the zone of penetration. They prevent further infestation and so protect the timber against future damage. There are two types of liquid treatments. Emulsion based products penetrate less deeply than solvent based types. Initial kill is very low so the damage may continue for years. They are suitable only for use against light infestations of the common furniture beetle that causes less structural damage. Emulsion based products cause the timber to swell. Both of them penetrate into the timber and kill some larvae. Surviving larvae mature into insects, which are only then killed by residual insecticide as they bore their way through the surface. Solvent-based products kill more larvae than simple emulsion based types at the time of the application. This is because they can penetrate deeper into the timber section. They are applied to the surface of the infested timber by brush or spray. In large dimension timbers, injection may be used as well. (Berry 1994, 70-72)

Paste products are bodied emulsions. Gelatinous emulsion pastes have a high oil solvent content. They adhere to the timber surfaces and deliver greater quantities of active ingredients than liquids. Paste products can penetrate deep into the timber section. Yet, they are not suitable for widespread applications and are more costly. They take longer time to apply, leave a waxy deposit on the skin of the timber surface after the absorption of the

paste. There is a risk of staining the adjacent plaster. Time of application is not important for any of the treatment types. (Berry 1994, 70-73)

Spray application is the most convenient application method. Pressure of the spray makes no difference in the amount of the penetration or the effect of the chemical. A simple spray would be enough. Besides, using more developed sprays like atomised spray have some safety hazards. (Berry 1994, 70)

**Common Furniture Beetle:** When there is no dense infestation and a low-level activity, water based emulsion by spray. When there is dense infestation and a high level of activity infecting less than 30% of the timber cross section, spray apply solvent based formulation. You should use paste when more than 30% of the timber cross-section is affected. (Berry 1994, 11)

**House Longhorn Beetle:** For any type of infestation, you should spray apply solvent based application. As this type may cause structural weakness, detect the condition of the timber by a thin and sharp object. If you suspect that the infestation is deep and there may be structural weakening, you may have to replace the weakened area. For windows, filling the hole with timber putty could be enough. (Berry 1994, 12)

**Deathwatch Beetle:** If infestation is restricted to sap timber, solvent-based formulation can be applied by spray. If not, you should consult an expert for more serious treatment. (Berry 1994, 12)

**Lyctus Powderpost Beetle:** If the treatment is appropriate, use solvent-based formulation; spray applied. Most probably, replacement of timber will be necessary. With a sharp and thin tool, and visually, detect the damaged area and remove it. Apply item no (PW12) or (PW13) as necessary for the replacement of timber. However, it would be more appropriate to

consult an expert for further investigation in the house when you detect this type of beetle. There may be structural damage in the building that you cannot detect visually by yourself.

## How to Apply Insecticide

### Preparation and using the product:

- **AVOID DIRECT CONTACT WITH THE PRODUCT.** Use gloves. If you contact, wash the contact area carefully.
- Dilute the concentrates and dispense the solution into spray in open air. **AVOID INHALING THE SOLUTION.**
- Use deep containers to **AVOID SPLASHING.** Also, avoid using methods that would cause the solution to splash while mixing.
- **FOLLOW THE DILUTION INSTRUCTIONS THAT ARE GIVEN WITH THE PRODUCT CAREFULLY.** Do not under dilute to obtain better results. This would harm you and other inhabitants of the building or the building materials.
- Do not confuse diluted and undiluted products.
- Keep clean water nearby for washing.
- Do not eat, drink or smoke during the process.
- If the product is spilled, clear using sand or a similar absorbent material. Wash with detergent and water. **WASTE WATER SHOULD NOT BE ALLOWED TO ENTER IN ANY DRAINS.** You may consult the municipality for disposal.
- Only the operator should be in the place of preparation and application.
- Keep animals and children away from the application areas. As they would be closer to the application area, they would be affected more than a grown up operator would.
- Apply preservative as far from your body as possible. Especially keep it away from your face.
- Use only low-pressure coarse sprays to avoid risk of inhalation.
- Try not to pass through treated surfaces during application.
- Avoid crawling in the treated areas.

- The treated area should be ventilated throughout the application period.
- Keep the windows and doors of the treated area open.
- Ventilate the adjacent spaces for precaution.
- Extra ventilation measures may be needed for cellars and roof spaces.

You may have to remove some floorboards.

- Consider carrying out the work in brief sessions especially if the ventilation possibilities of the treatment area are limited. In such spaces, there is a risk that the operator may not get enough oxygen.
- Do not reuse the building before the time stated on the product.
- The treated areas should be properly ventilated before using electrical equipments and gas supplies. Any clothing that is used during application should be washed with detergent before using again.
- Contaminated skin should be flushed with plenty of water.
- If eyes are contaminated, they should be washed by preferably tap water for at least ten minutes.

Anyone who feels unwell during or after the application should immediately be taken to a well-ventilated space away from the treatment area. After this, the person should be taken to a hospital or a health clinic for precaution. Necessary information should be given to the doctor about the chemical used. You may take the product label or leaflet with you. If the application is carried out carefully following the instructions, there is no health risk.(Berry 1994, 98-104)

### How to Prevent Fungal Decay

Fungal decay becomes possible in timber only if the moisture content is high (above 22%). If the timber is dried, the fungi cannot continue the decay process. In addition, in well-designed and maintained buildings, timbers do not become damp. Decay occurs only in damp timbers. It cannot colonise dry and well-ventilated timber or masonry. Yet, it can spread from nearby damp timber or masonry to dry timber, if it is not well ventilated. Gloss paint and other impervious coatings can trap moisture in masonry or timber skeleton

walls. Therefore, fungus can spread through coated masonry or timber. (Berry 1994,6-7)

Exposed timber can be subjected to persisting wetting by rain if it is not protected by roof eaves, overhangs and deep reveals. Windows in the area are protected by deep reveals in most cases. In many buildings, they are also protected by shutters. Yet, where there are no shutters and where the window is facing prevailing wind direction, there may be a risk for unprotected timber.

Paint films give no persistent protection against moisture penetration, but may encourage it as stated above. This moisture enters through cracks in the paint film. Many external timbers will exceed the threshold for decay and will be at risk for some period. As a result, it is necessary for the external timber to be preservative treated, but this may be unnecessary if the timber used is a naturally durable one. In addition, regular monitoring of the condition of the paint and regular maintenance are essential.

Decay is most common in the bottom joints of window frames, exposed end-grains particularly susceptible to water penetration. When you detect decay in timber, first determine the type of fungi as stated in (PW09). If it is dry rot, you should do the following:

- Determine extend of infection. Keep in mind that, dry rot has the ability to spread through permeable masonry and plaster. Due to this ability, it may affect structural timber within the walls.

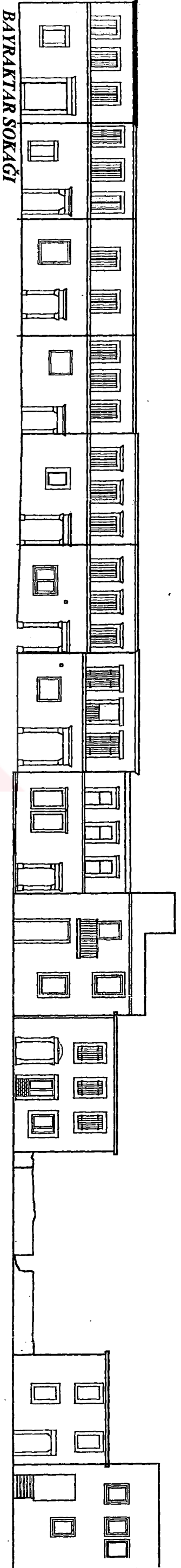
If you suspect that dry rot has spreaded beyond windows, doors and shutters, you should consult an expert. A restoration project should be prepared to determine the decayed timbers within the building, the extend of decay and to determine the strength of the existing structural timber. Especially check if the walls are damp.

## **APPENDIX F**

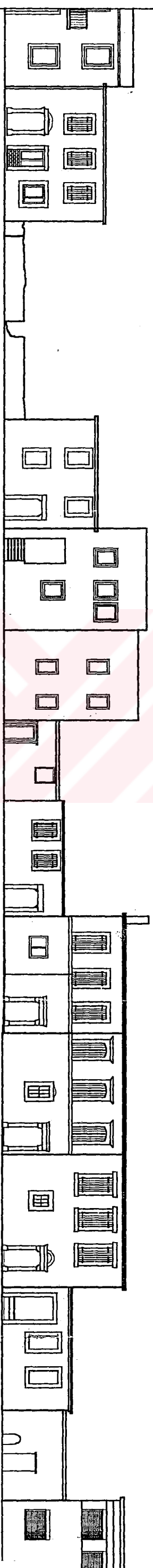
### **PLANS AND ELEVATIONS**

During the site survey, many building façades and plans are documented and some of these are drawn as sketches. The plans in this section are not measured. They are only sketches. The thickness of the walls and window dimensions are correct. In addition, the façade length is taken from the plan of the area. The façades are roughly measured and are to scale. The measurements were taken by hand and a meter. The façade drawings are drawn by these rough measurements, and by the help of detailed photographs. So, they can be classified as measured sketches.

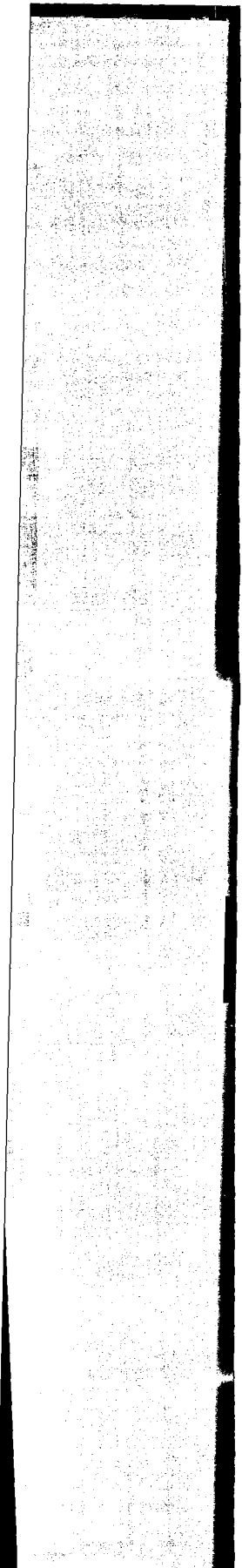


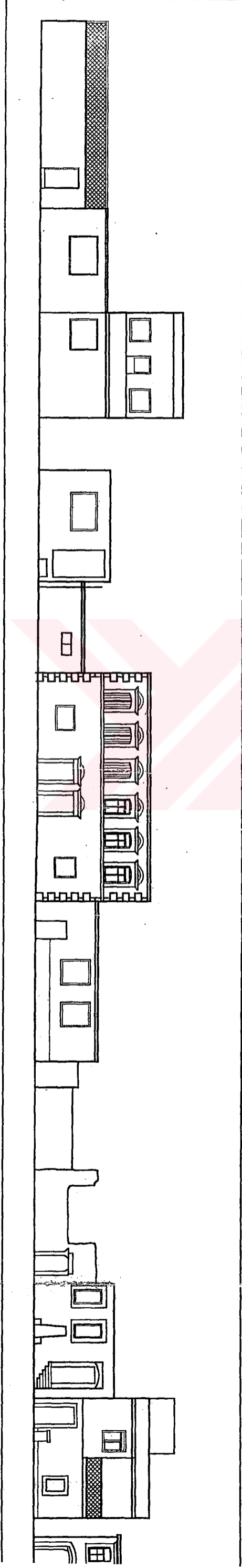
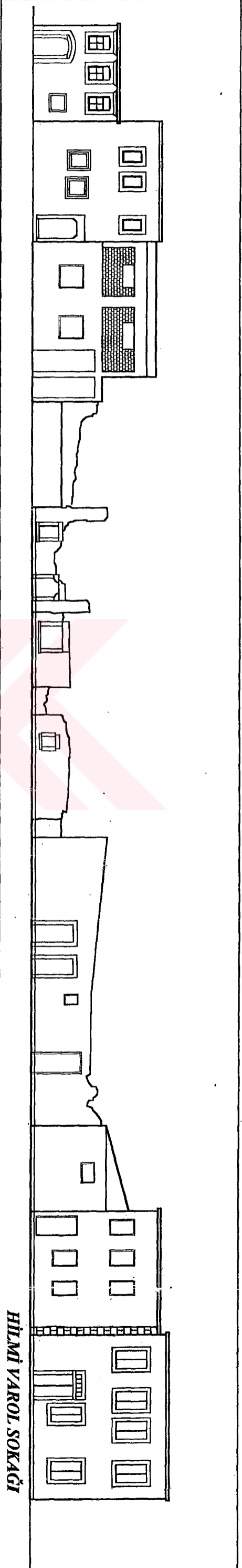


BAYRAKTAR SOKAĞI

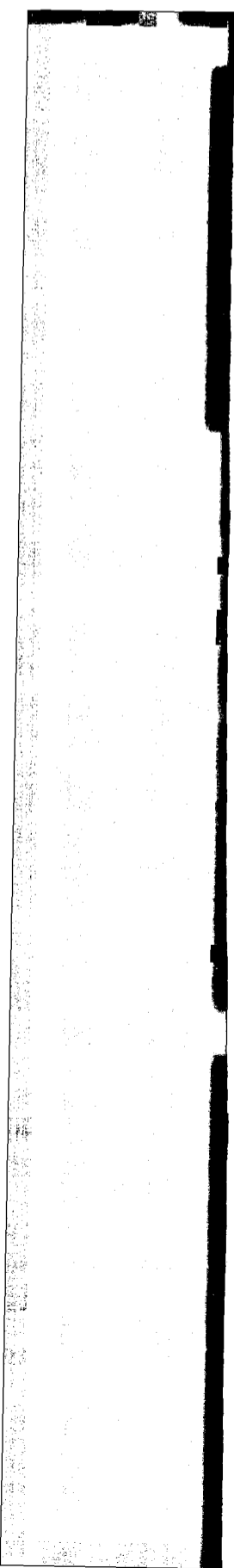


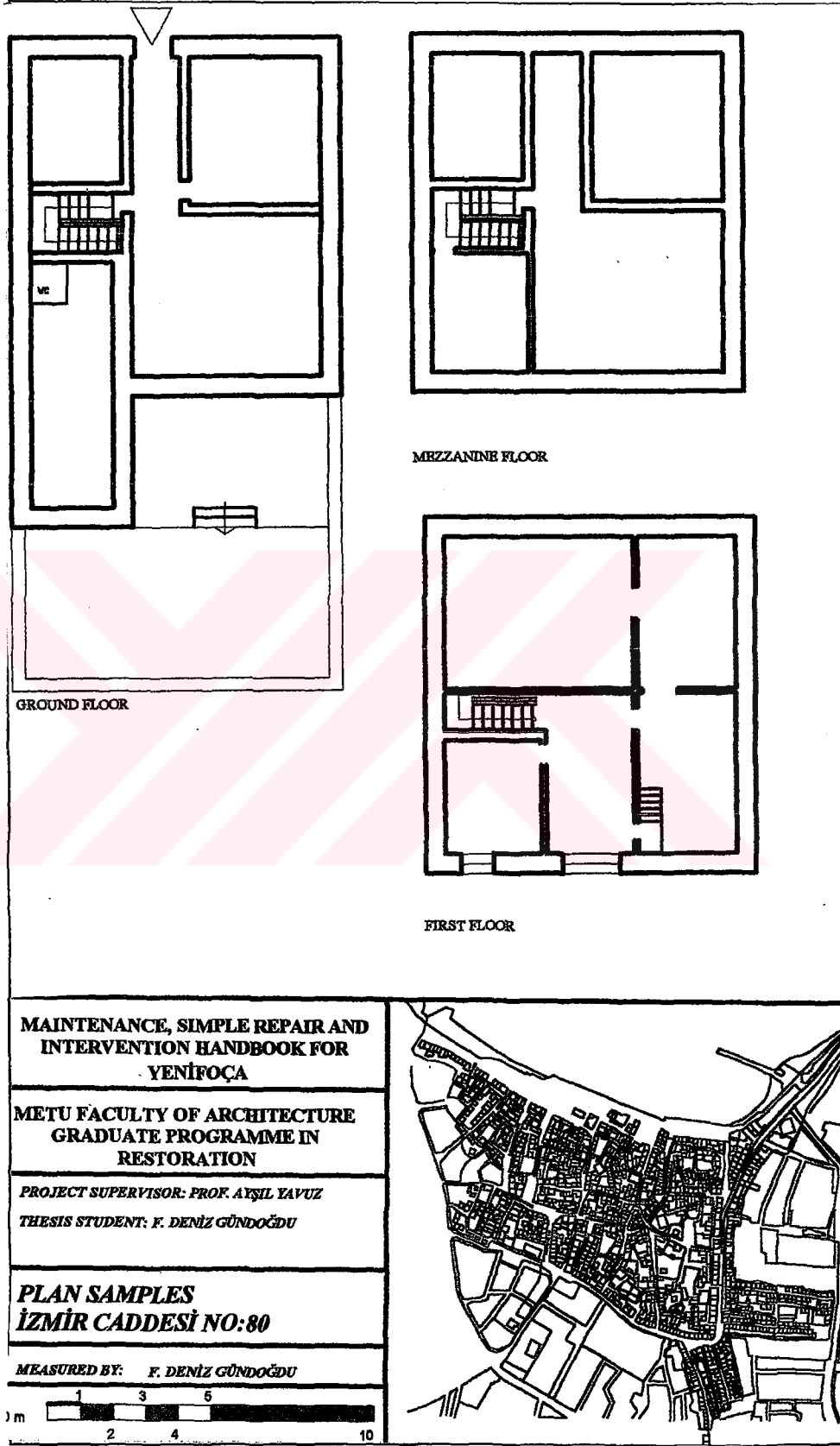
F.1 Bayraktar Sokakı Elevation



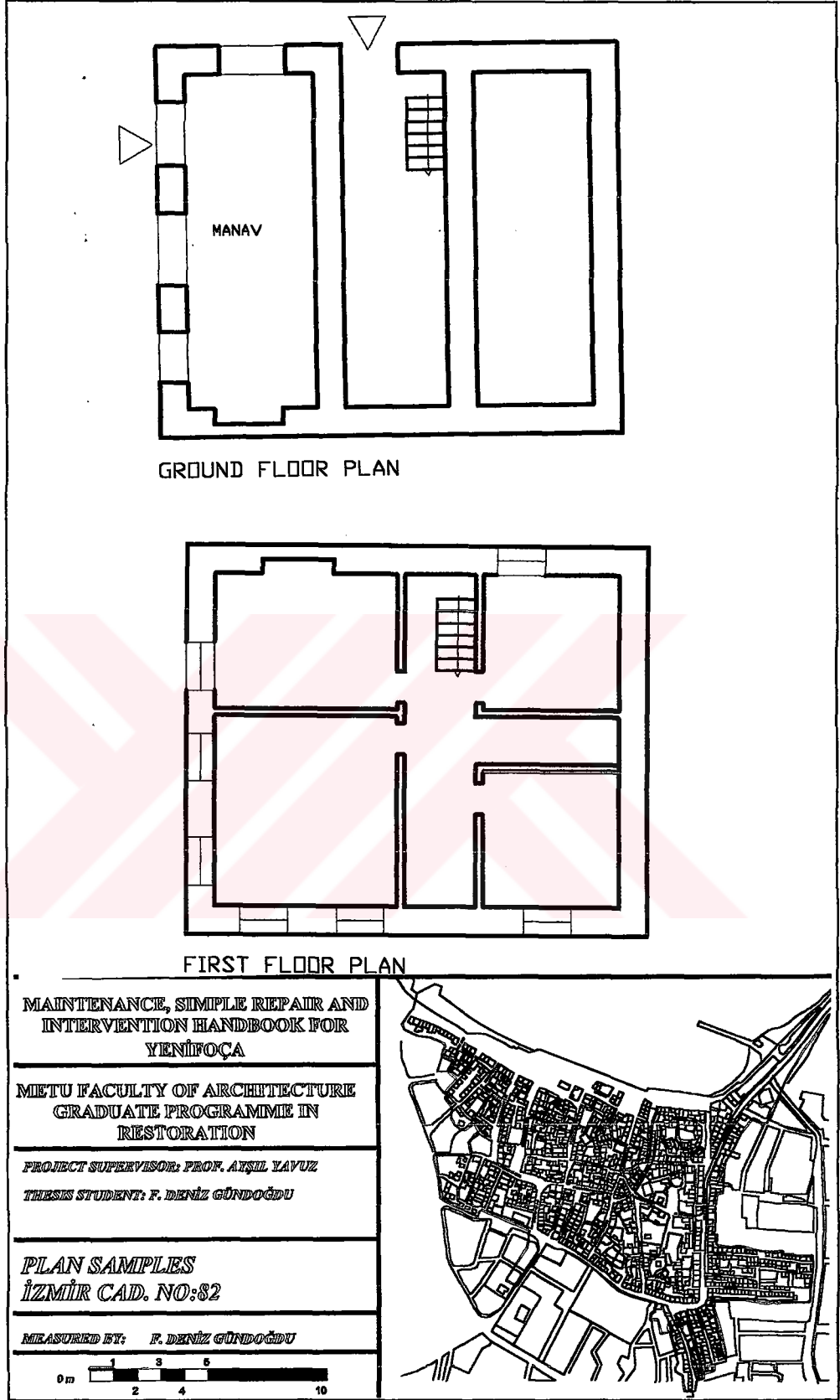


F.2 Hilmi Varol Sokakı Elevation

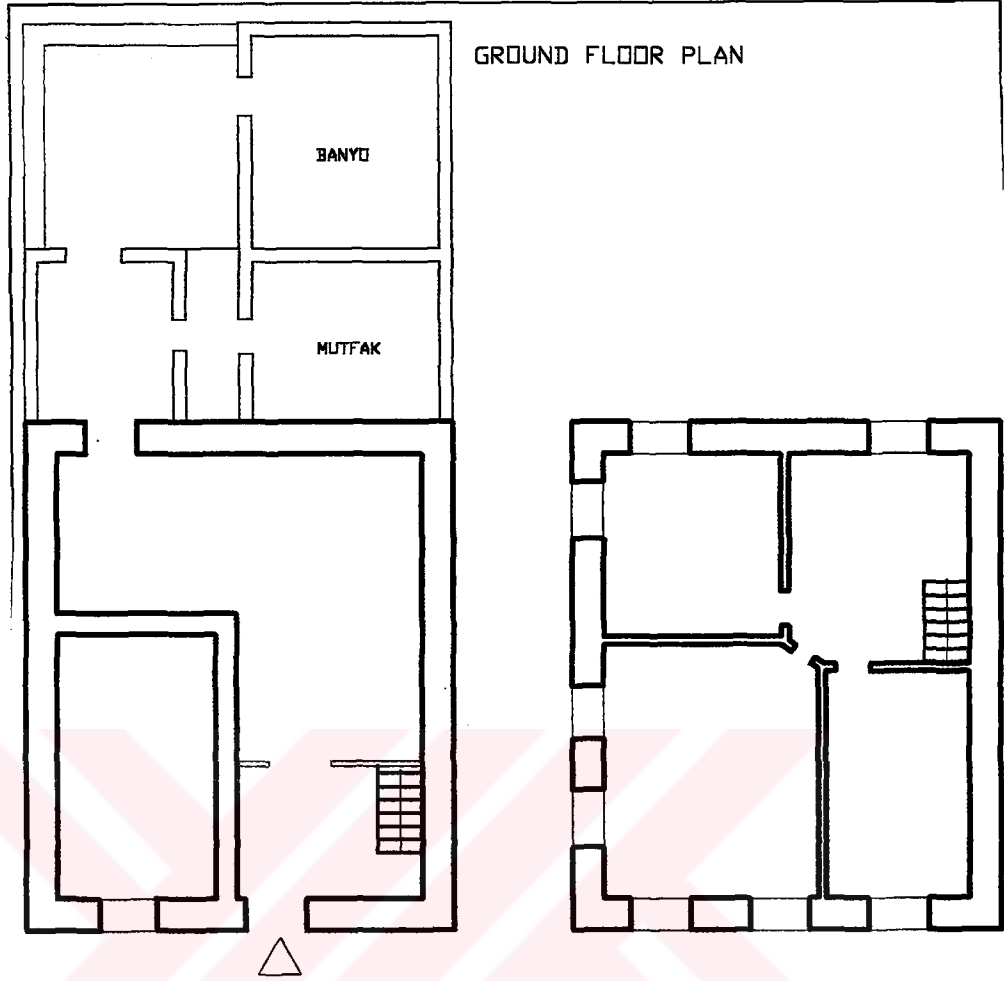




F.3 Plans of İzmir Caddesi No: 80



F.4 Plans of İzmir Caddesi No: 82



GROUND FLOOR PLAN

FIRST FLOOR PLAN

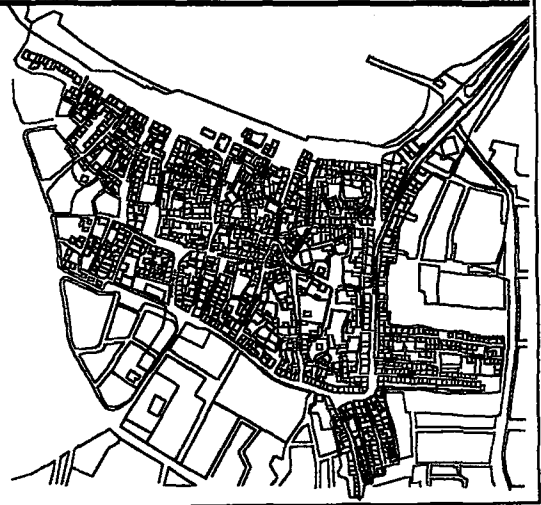
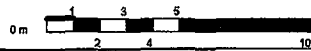
**MAINTENANCE, SIMPLE REPAIR AND  
INTERVENTION HANDBOOK FOR  
YENİFOÇA**

**METU FACULTY OF ARCHITECTURE  
GRADUATE PROGRAMME IN  
RESTORATION**

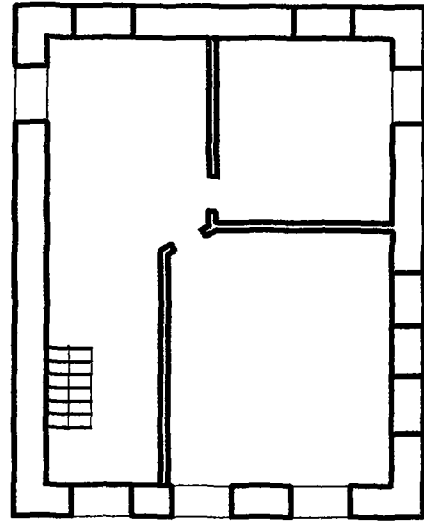
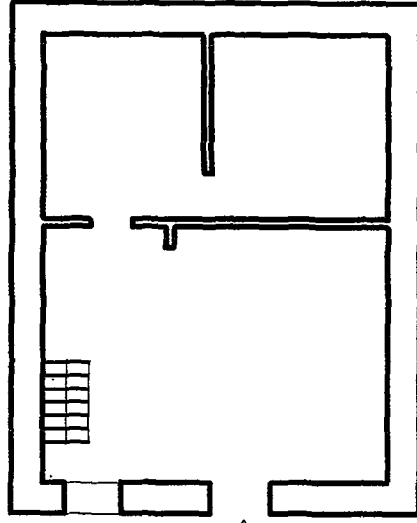
*PROJECT SUPERVISOR: PROF. AYŞIL YAVUZ  
THESIS STUDENT: F. DENİZ GÜNDOĞDU*

**PLAN SAMPLES  
İZMİR CADDESİ NO:113**

*MEASURED BY: F. DENİZ GÜNDOĞDU*



F.5 Plans of İzmir Caddesi No: 113



GROUND FLOOR PLAN

FIRST FLOOR PLAN

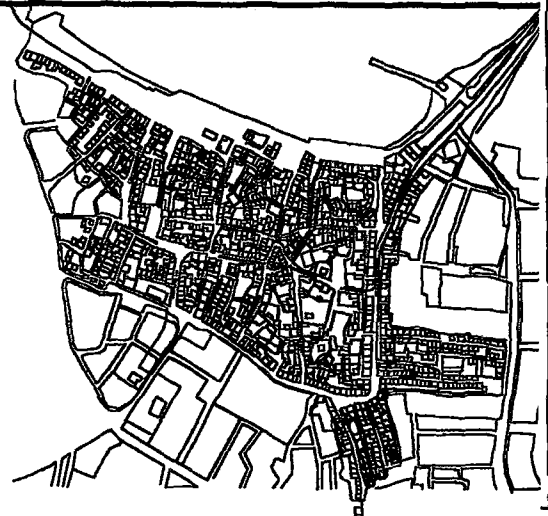
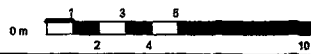
**MAINTENANCE, SIMPLE REPAIR AND  
INTERVENTION HANDBOOK FOR  
YENİFOÇA**

**METU FACULTY OF ARCHITECTURE  
GRADUATE PROGRAMME IN  
RESTORATION**

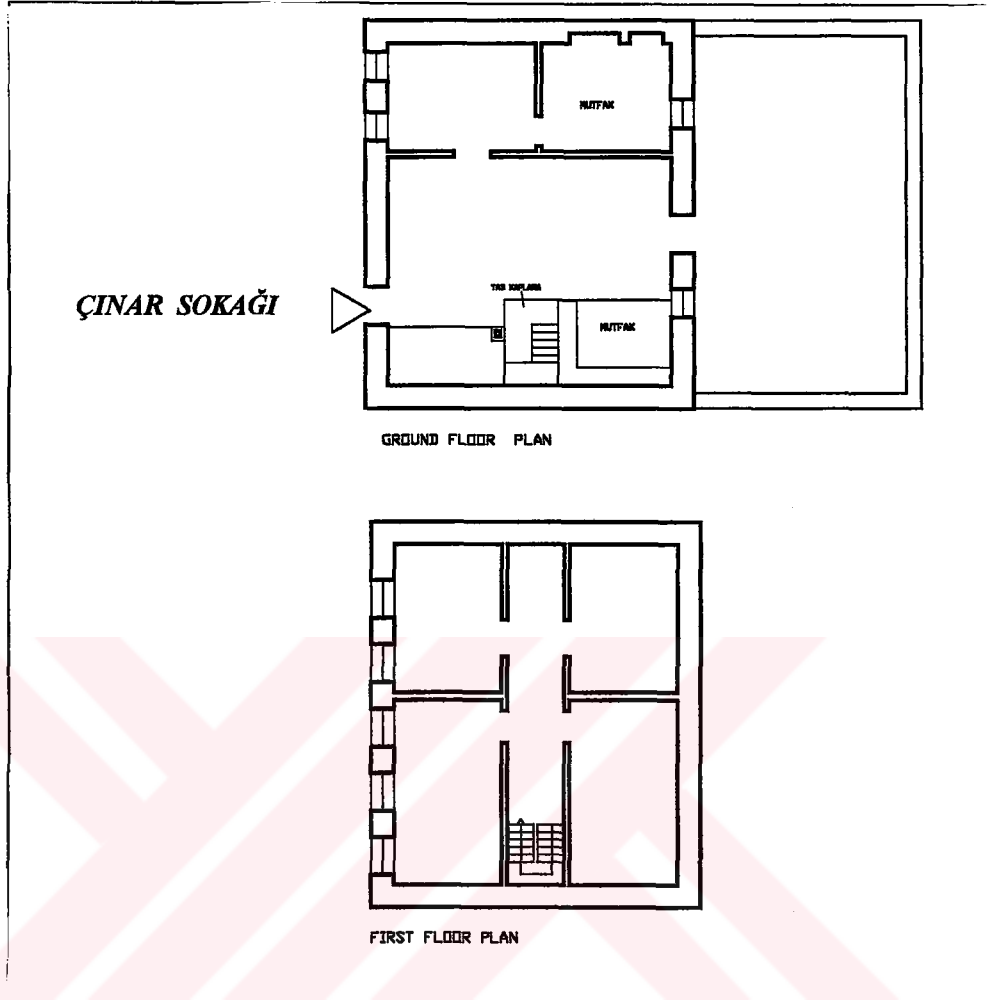
*PROJECT SUPERVISOR: PROF. AYŞIL YAVUZ  
THESIS STUDENT: F. DENİZ GÜNDOĞDU*

**PLAN SAMPLES  
İZMİR CADDESİ NO:115**

*MEASURED BY: F. DENİZ GÜNDOĞDU*



**F.6 Plans of İzmir Caddesi No: 115**



<p><b>MAINTENANCE, SIMPLE REPAIR AND INTERVENTION HANDBOOK FOR YENİFOÇA</b></p>	
<p><b>METU FACULTY OF ARCHITECTURE GRADUATE PROGRAMME IN RESTORATION</b></p>	
<p><i>PROJECT SUPERVISOR: PROF. AYŞIL YAVUZ</i></p> <p><i>THESIS STUDENT: F. DENİZ GÜNDOĞDU</i></p>	
<p><b>PLAN SAMPLES</b></p> <p><b>ÇINAR SOKAĞI NO:6</b></p>	
<p><i>MEASURED BY: F. DENİZ GÜNDOĞDU</i></p>	
<p>0 m</p>	

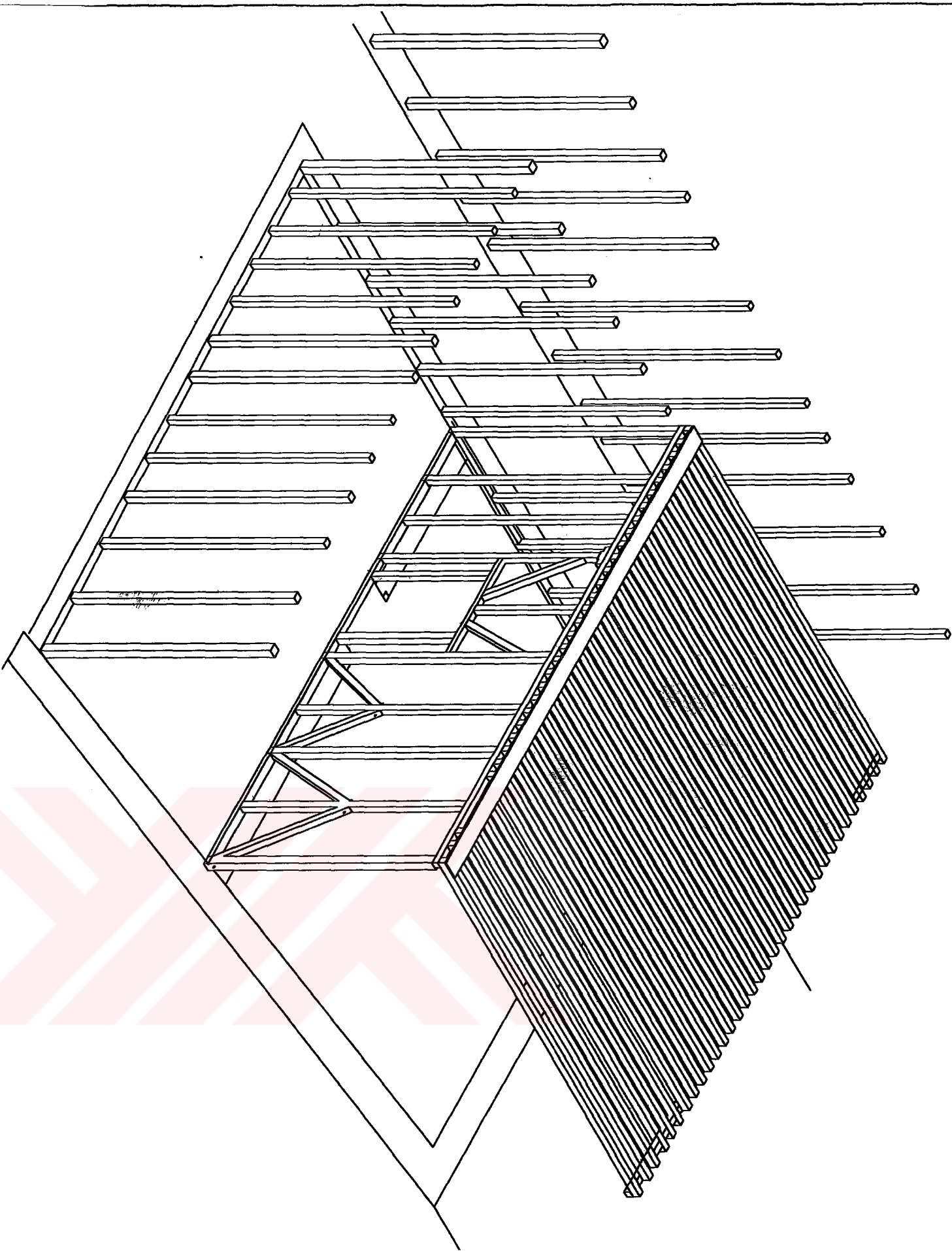
**F.7 Çınar Sokağı No: 6**

## **APPENDIX G**

### **DETAILS**

The drawings in this section are prepared during the thorough survey within the buildings. 3D models of the buildings and of various building components are drawn to the scale but are not pressed with a definite scale. They are included to give an idea of the construction system of the buildings of which the system could be observed.



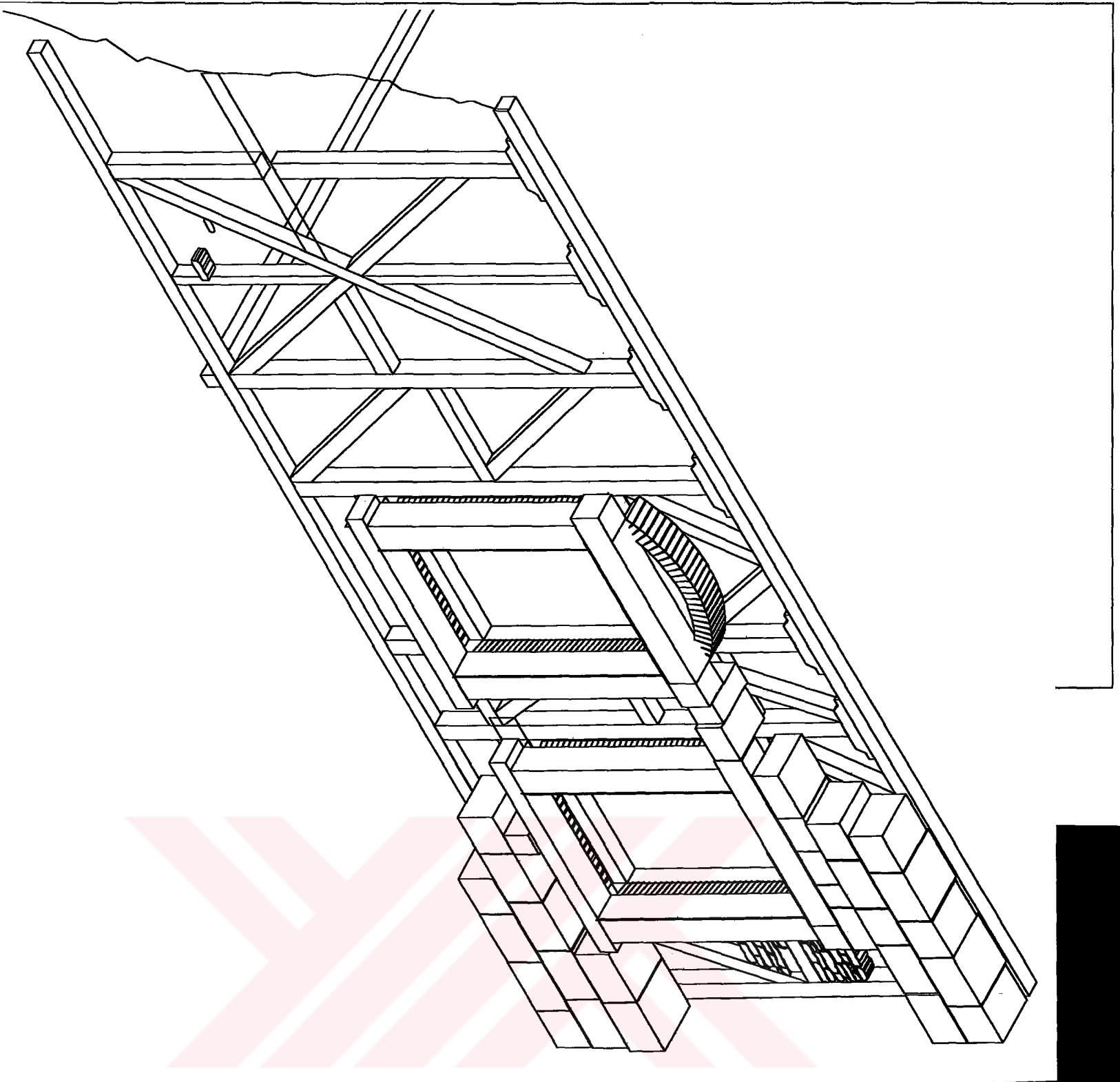


G.1 İzmir Caddesi No:1 – Partial 3D Model of the Ground Floor.

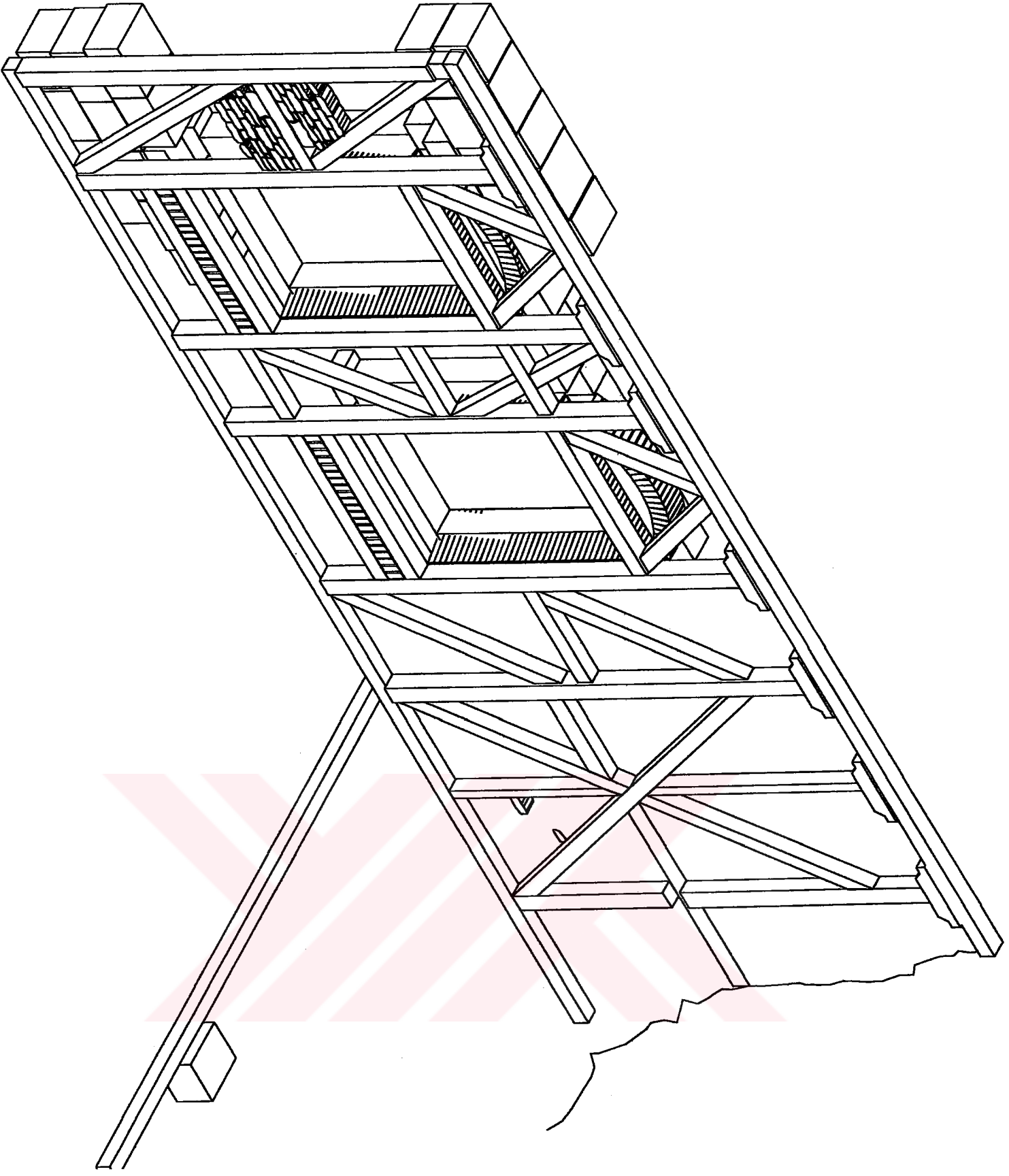
311

İzmir Caddesi No:1  
311



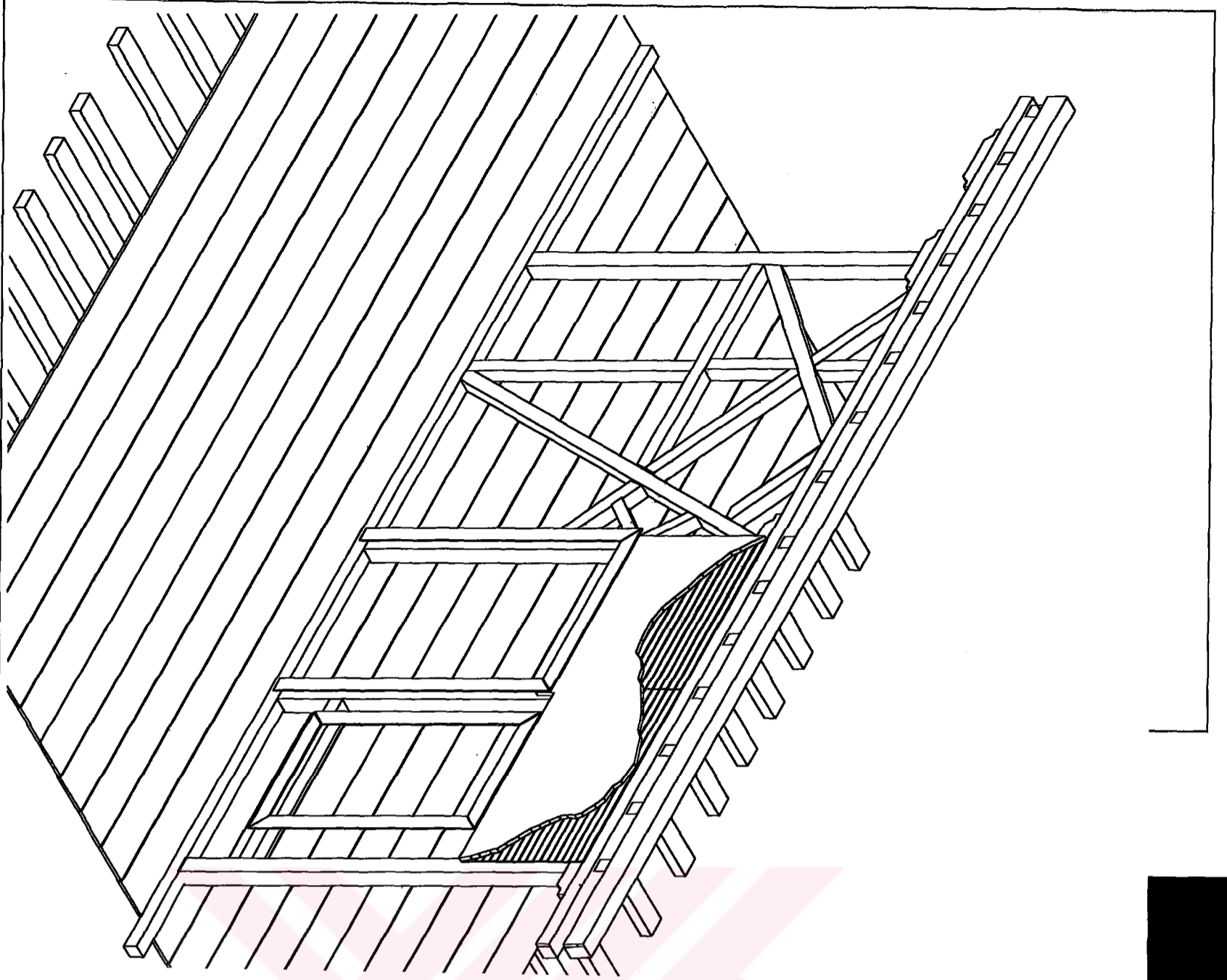


G.2 İzmir Caddesi No:1 – Partial 3D model of the second storey wall (exterior view)

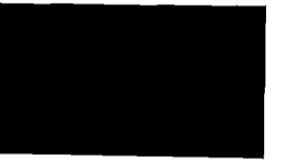


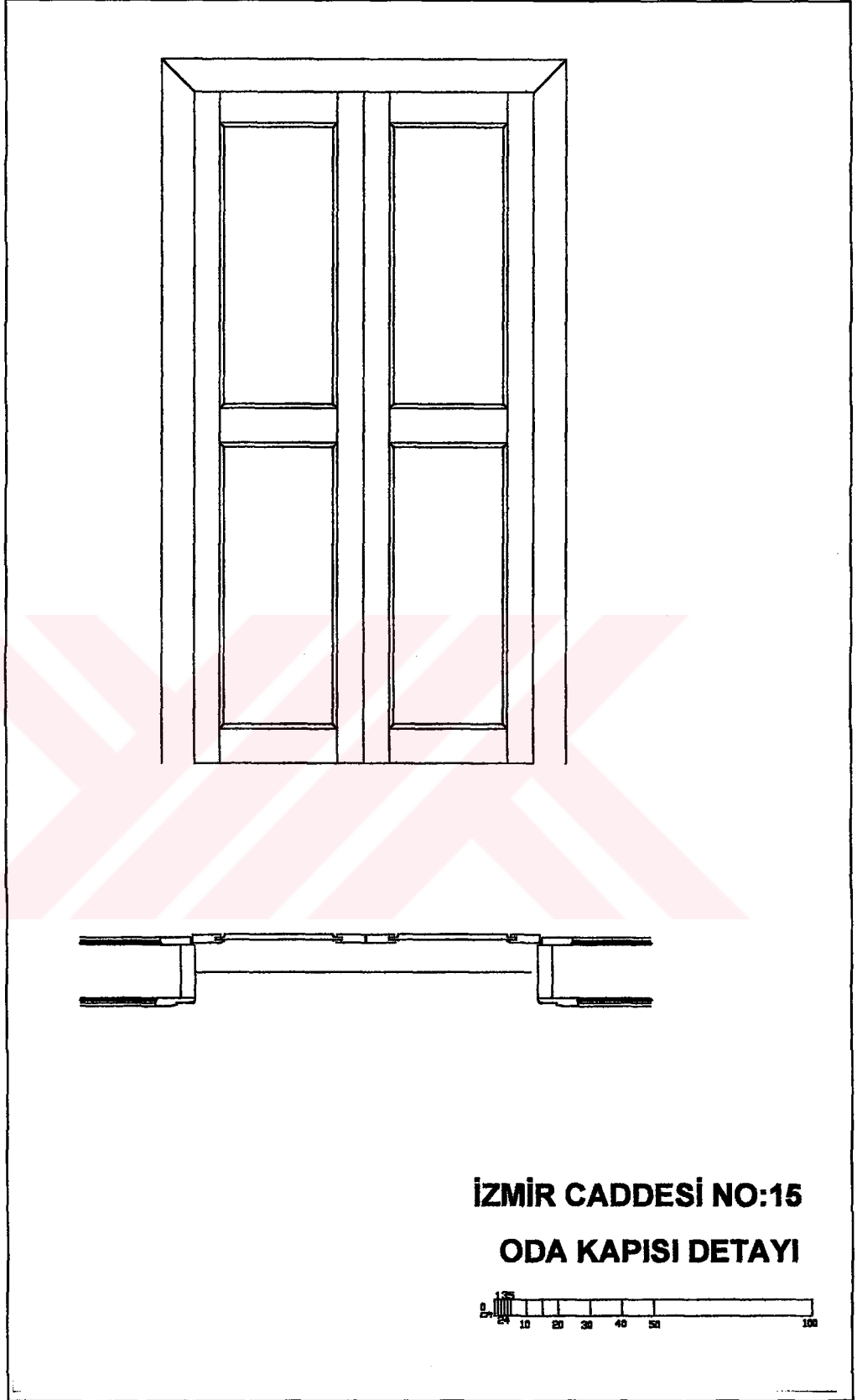
G.3 İzmir Caddesi No:1 – Partial 3D Model of the Second Storey Wall (Interior view)



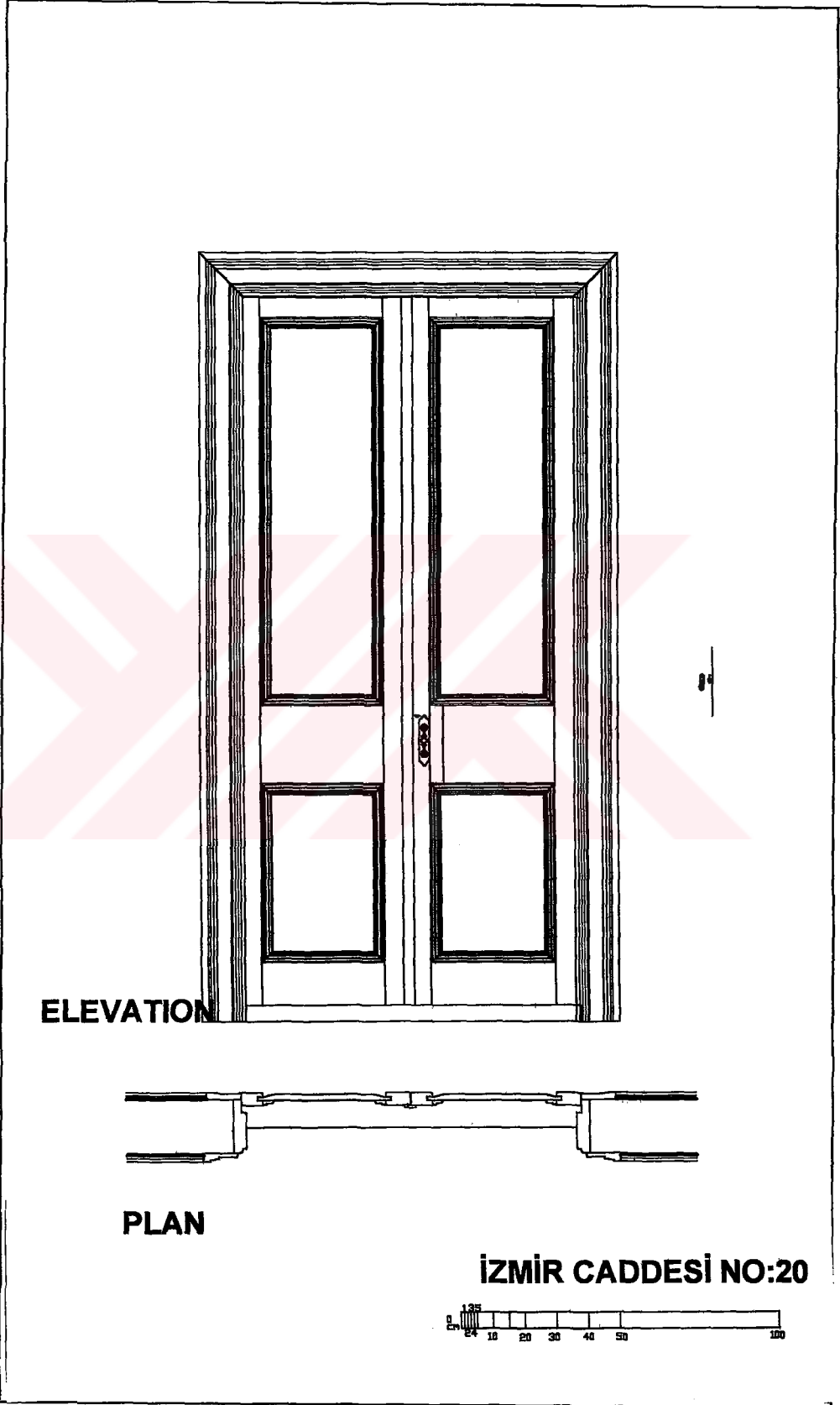


G.4 Partial 3D Model of an inner wall

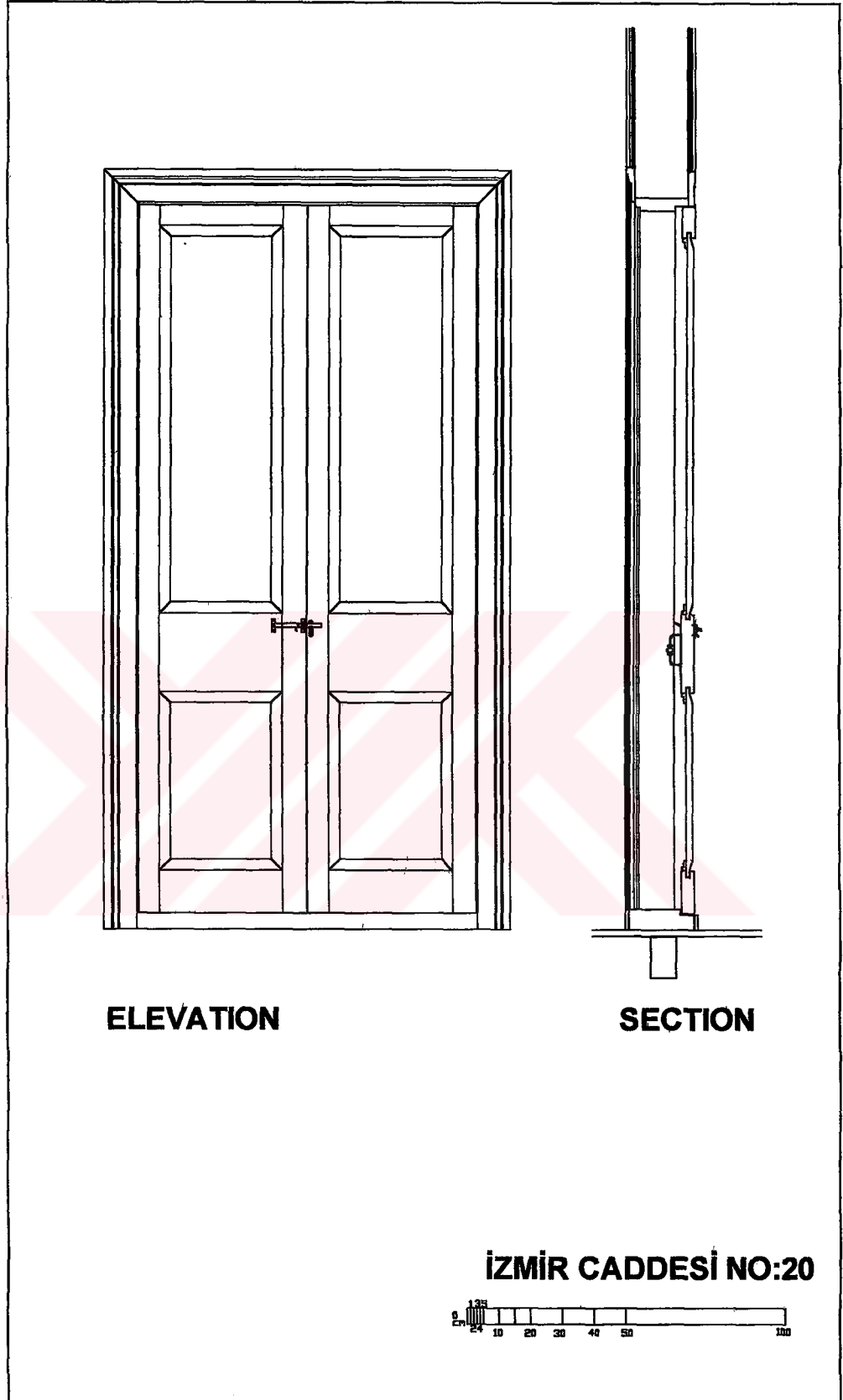




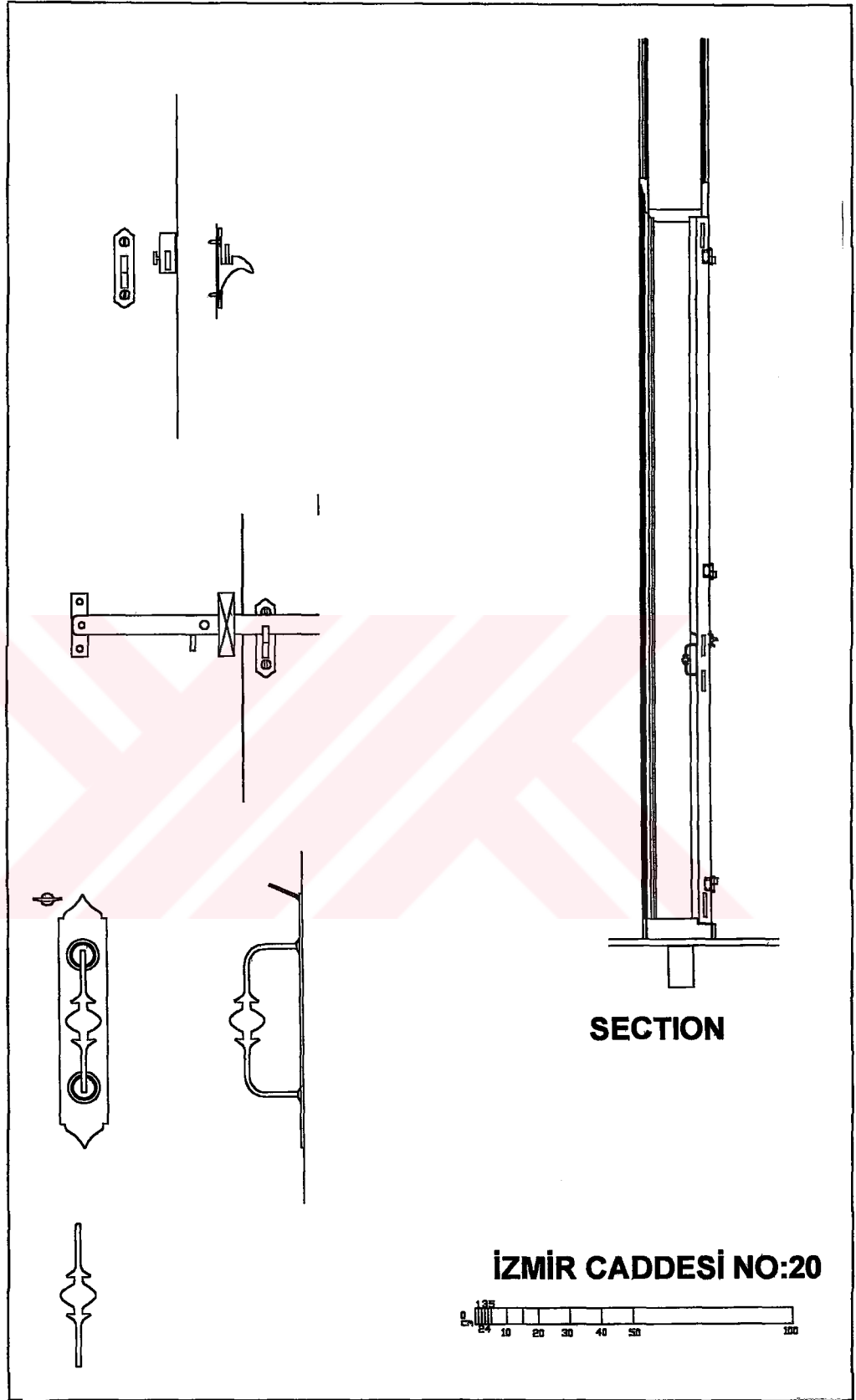
G.5 İzmir Caddesi No: 15 – A room door; Elevation and Plan



G.6 İzmir Caddesi No:20 – A room door; Elevation and Plan

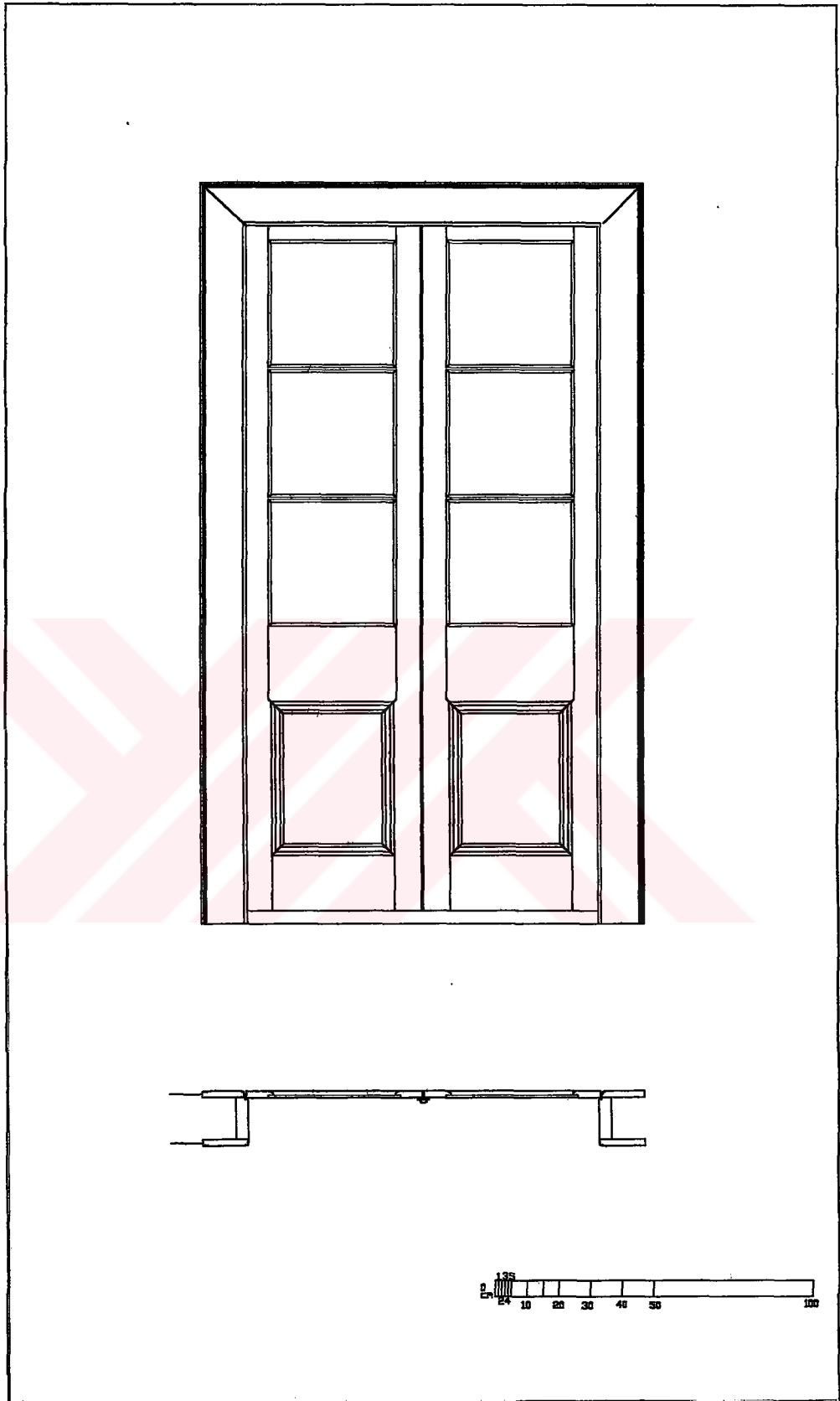


G.7 İzmir Caddesi No: 20 – A room Door; Elevation and Section

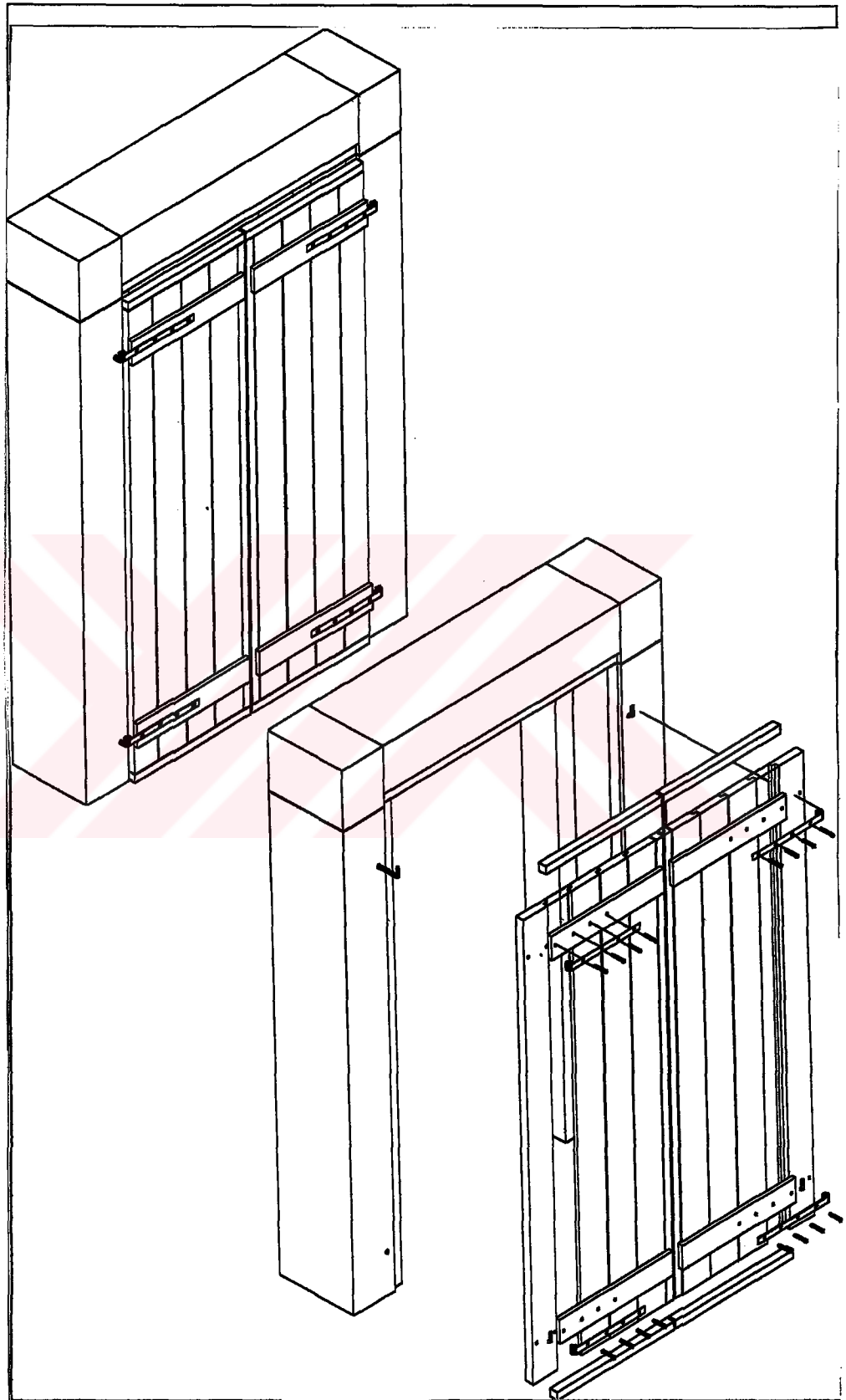


G.8 İzmir Caddesi No:20 – A room door; Section and details

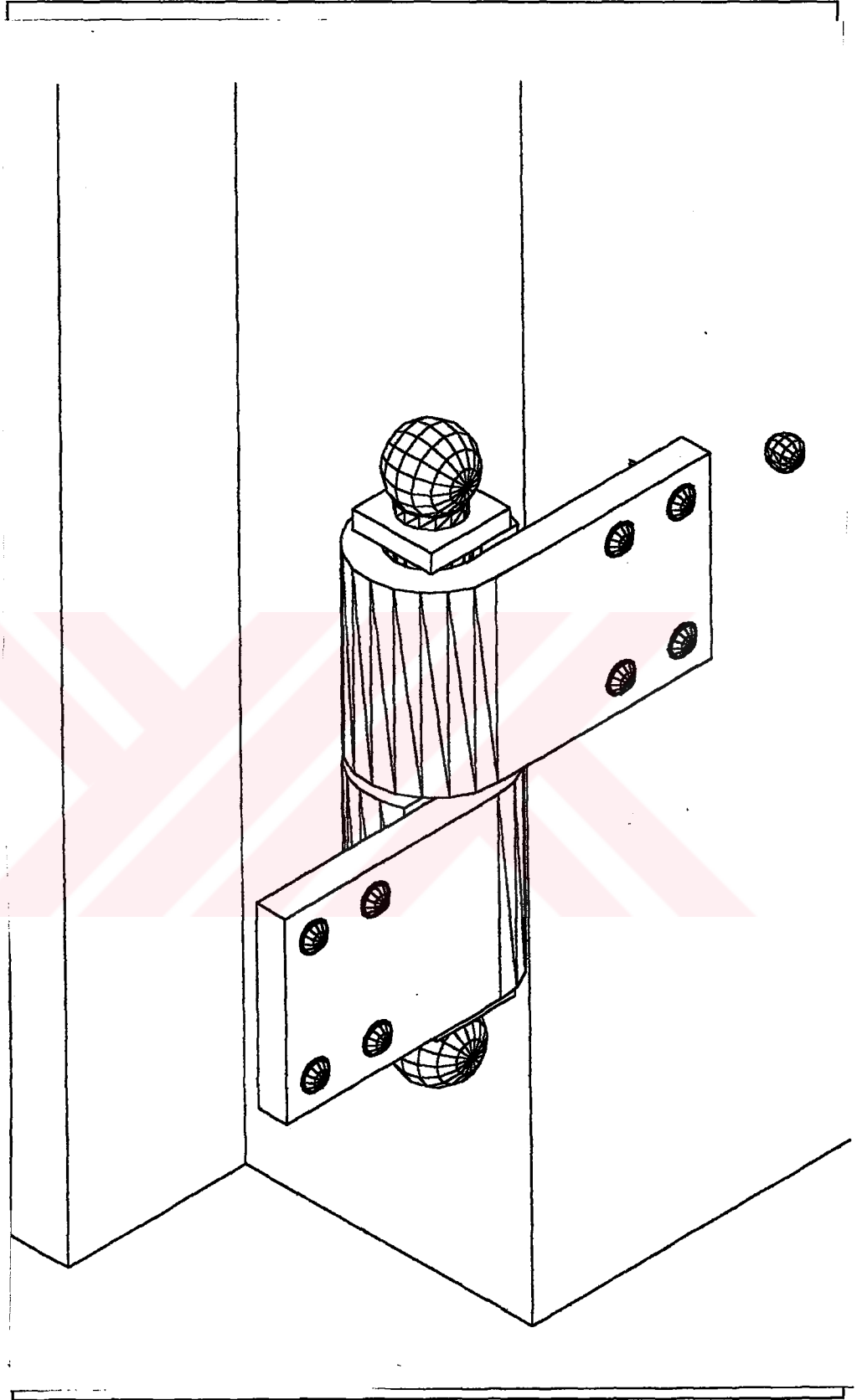




G.9 A room door: Plan And Elevation



G.10 Wooden Shutter Detail – 3D Model


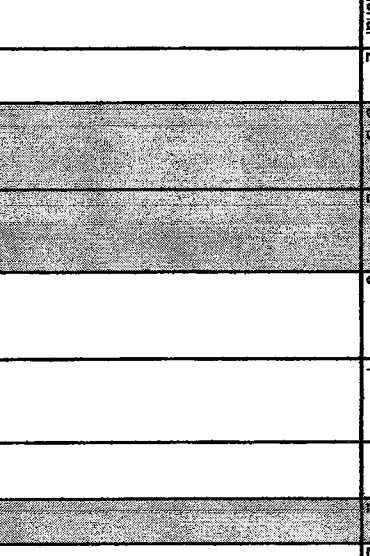
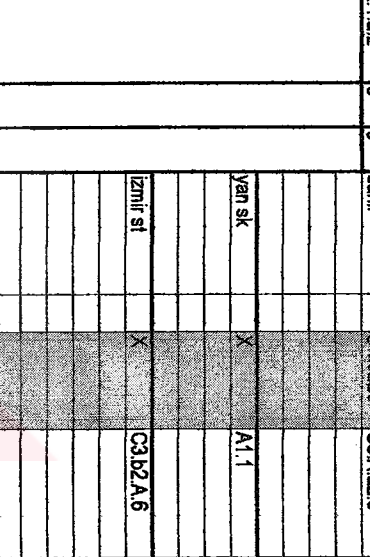
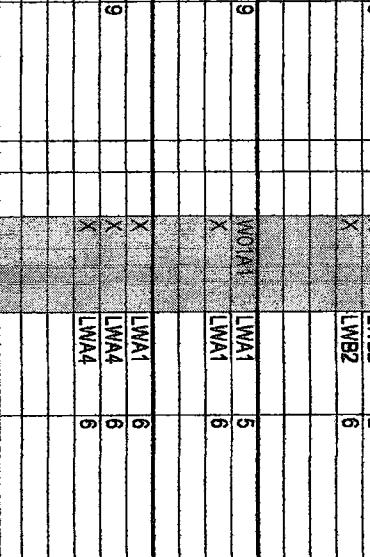
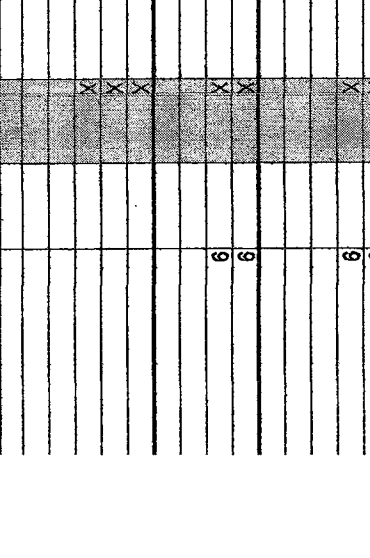



G.11 Kuşluk Detail

## **APPENDIX H**

### **BUILDING DOCUMENTATION CHARTS**

This chart is prepared after the site survey, and analysis steps. It aims to give collective information to the user on the building. It has two main parts. First part gives general information on the building. Its address, some photographs, building height, function, condition of the building are the topics of the first part. The second part gives information on the façade characteristics and the façade elements. There are some abbreviations used in the chart. The explanations for these are given in the last chart.

ADDRESS & ELEVATIONS		ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR		WIN		SHUTTER		WALL CON. TYPE	MATERIAL DETERIORATION	
						structural cond.	plaster						DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE		
Zmir Caddesi	1		2	G+D	E			E	2.1.a.2	0	0	sehil	DND2B3	C3.A.a2.6	3	X	LWB2	2	X		9
Zmir Caddesi	3		1	D	D	5	4	E		0	0		new			new	LWA1	9	X		4
Zmir Caddesi	5		1	D	D			E								new	LWA1	9	X		4
Zmir Caddesi	7		1	D	D			E								new	LWA1	9	X		4
Zmir Caddesi	9		1	D	D			E								new	LWA1	9	X		4
Zmir Caddesi	11		2	D	D			E								new	LWA1	9	X		7
Zmir Caddesi	13		2	D	D			E								new	LWA1	8	X		7
Zmir Caddesi	15		2	D	D			E	2.1.a.2.7			Zmir C.	closed	A1.a3.1	9	u	LWA1	9	SMO4A		4
Zmir Caddesi	17		1	G	D	4		E				Zmir C.	altered to window		9	u	LWA1	5	SMO4B		4
Zmir Caddesi	19		2	D	D			E								new	LWA1	5	SMO4B		4
Zmir Caddesi	21		2	D	D			E								new	LWA1	5	SMO4B		4
Zmir Caddesi	33		2	D	D		X	E	2.1.b							u	LWA1	5	SMO3B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO3B		4
The Building was altered completely during Population exchange. Shop entrance and windows have been altered into small windows.																					
Zmir Caddesi	19		2	D	D			E								u	LWA1	5	SMO4B		4
Zmir Caddesi	21		2	D	D			E								u	LWA1	5	SMO4B		4
Zmir Caddesi	33		2	D	D		X	E	2.1.b							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
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Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
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Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35		2	D	D			E	2.1.b.2							u	LWA1	5	SMO4B		4
Zmir Caddesi	35																				



ADDRESS & ELEVATIONS		style	#stories	original function	current function	structural cond.	plaster	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Izmir Caddesi	47	Hilmi Varol Sokakı 2	2	D	D	3	X	U	2.1.a	X	X	Izmir C	DW02A1	Aa2.2	5	U	LWA1	4	SM04A	3	3	
Izmir Caddesi	49		2	D	D	2	X	S	2.1.a			Izmir C	new	Aa1.1	9	W02A1	LWC3	7	X	1	9	
Izmir Caddesi	51	Gezener Sokakı 1	2	D	D	4	X	U	2.1.a.2			Izmir C	DW02A1	Aa1.1	3	W01A1	LWC3	1	X	1	9	
Izmir Caddesi	53	Gezener Sokakı 1	2	C	D	4	X	U	2.1.a.2			Izmir C	DW02A1	Aa1.1	3	W01A1	LWC3	1	X	1	9	
Izmir Caddesi	55	Gezener Sokakı 2	2	D	D	5		U	2.1.a			Izmir C	new	Aa1.1	7	W01A1	LWA1	6	SM03A	2	7	
Izmir Caddesi	57																					
Izmir Caddesi	59	Bayraktar Sokakı 1																				
Izmir Caddesi	61	Bayraktar Sokakı 2																				
Izmir Caddesi	63																					
Izmir Caddesi	65																					

H.3 Building Documentation Chart



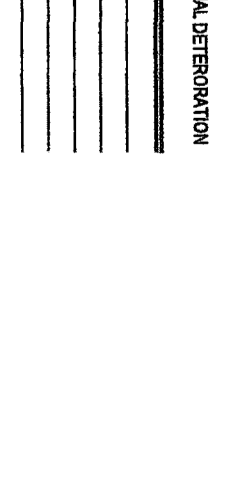
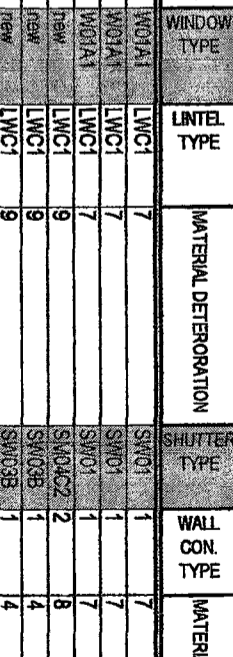
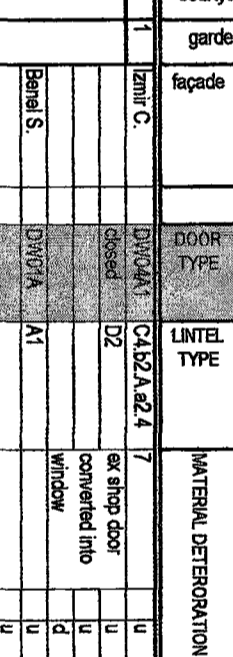
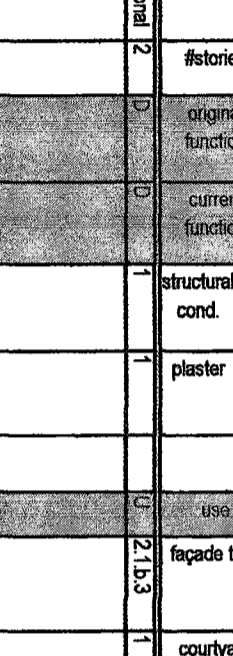
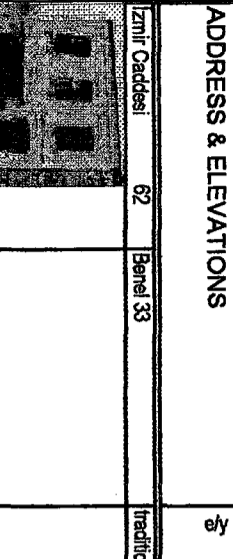
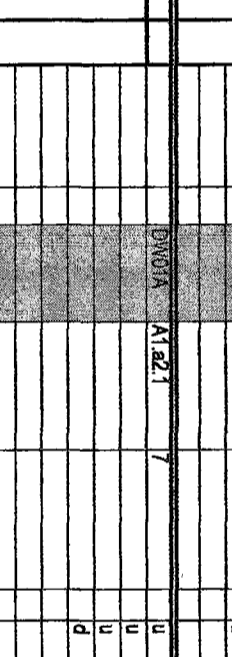
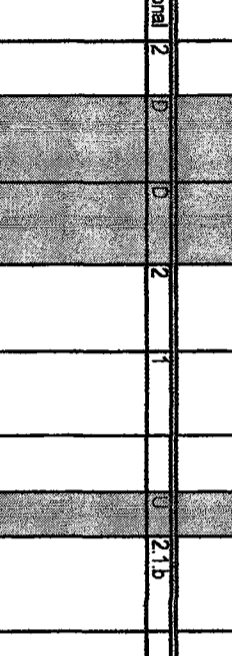
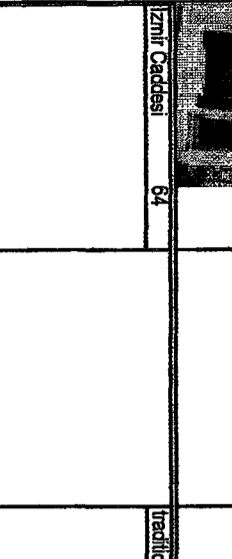
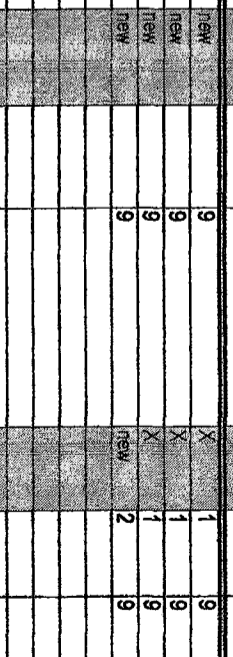
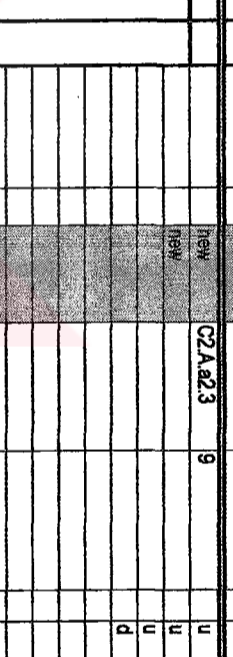
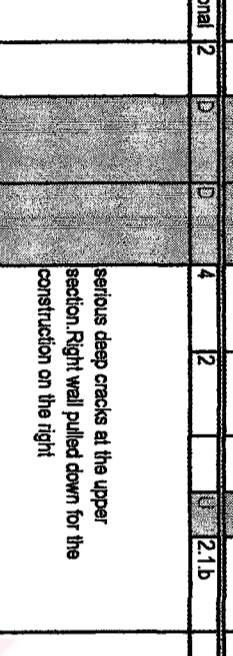
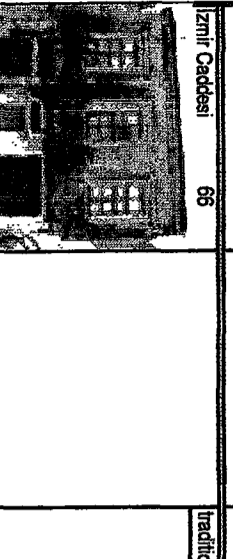
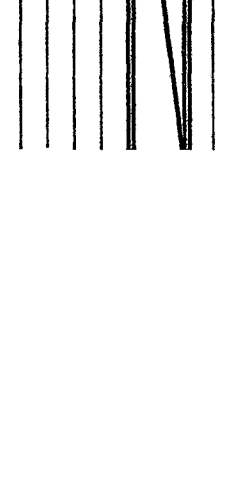
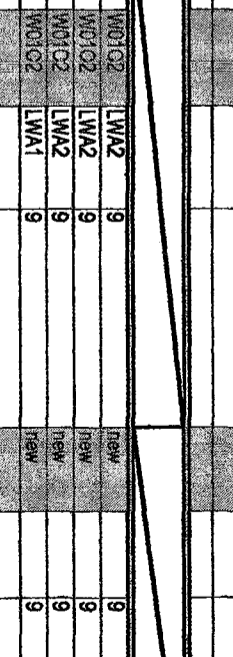
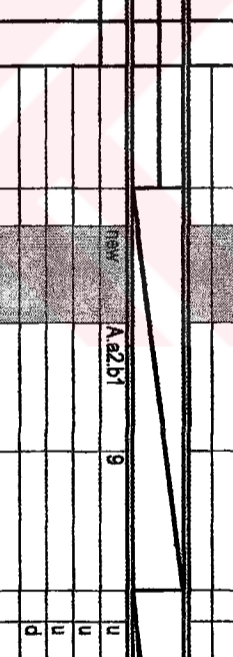
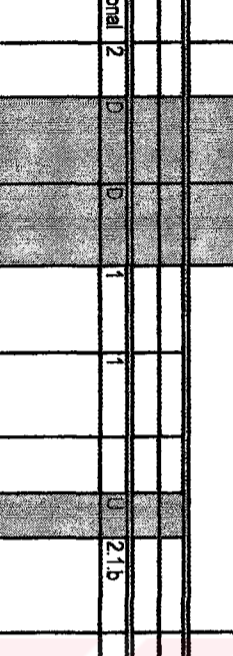
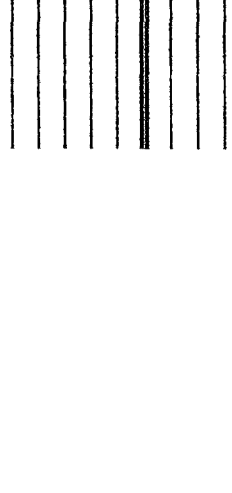
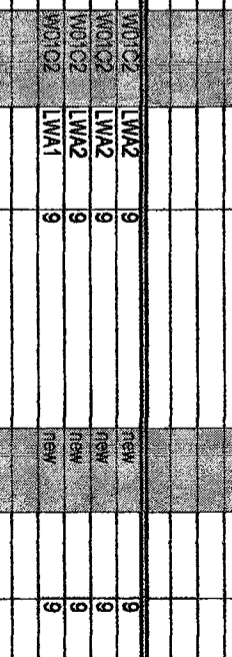
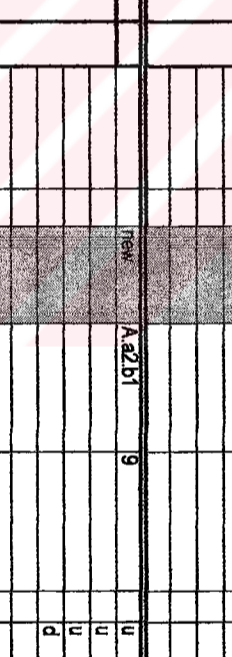
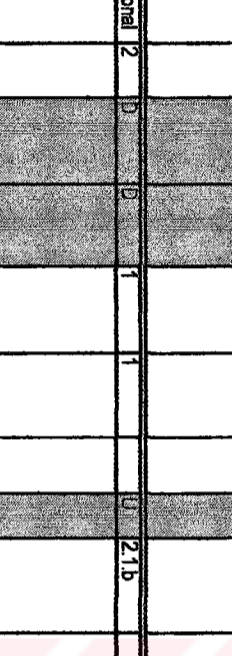
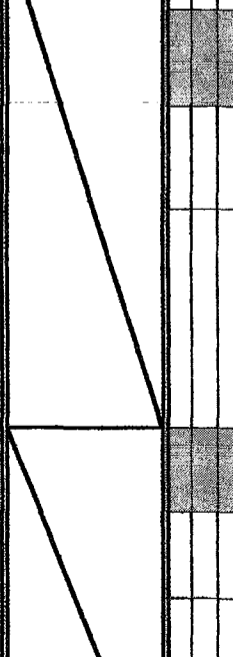
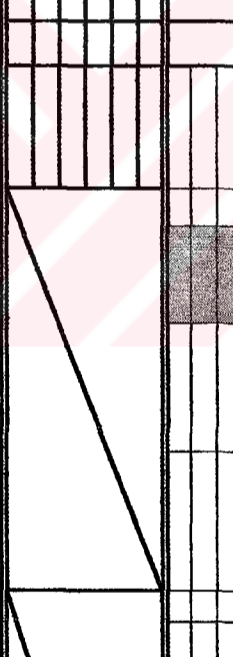
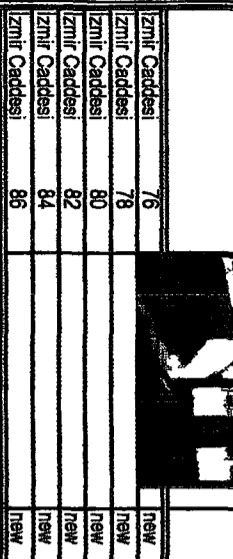
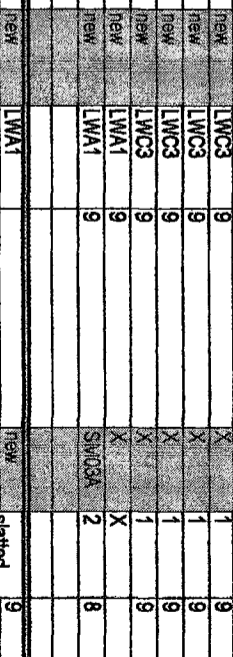
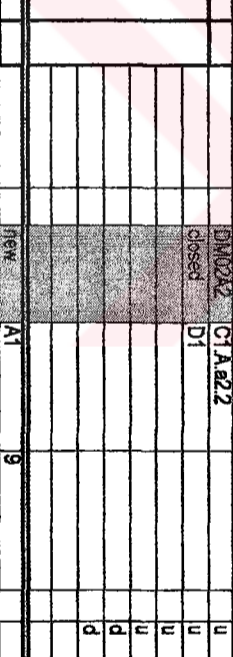
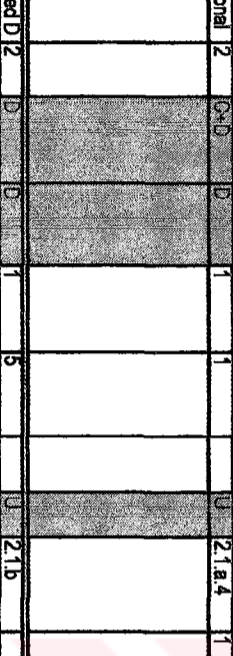
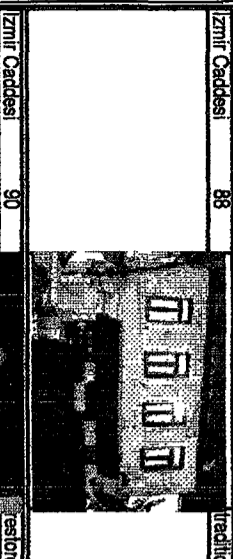
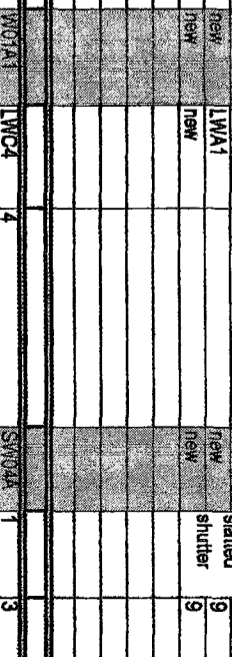
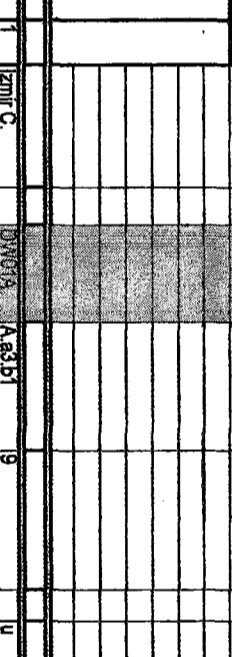
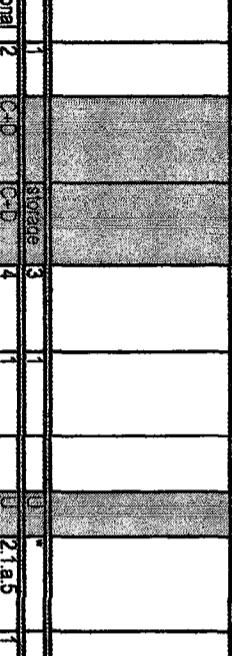
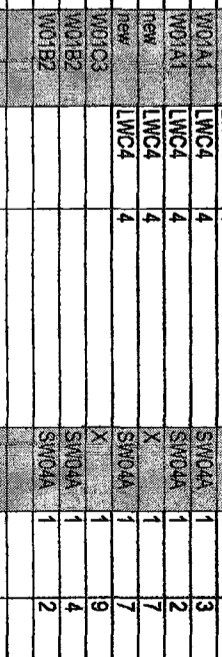
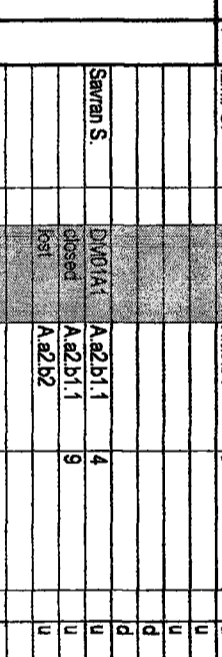
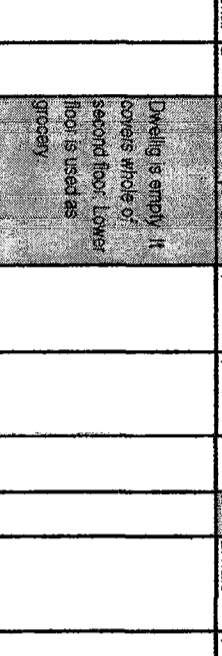






ADDRESS & ELEVATIONS

ADDRESS & ELEVATIONS	ely	#stories	original function	current function	structural cond.	plaster	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTE TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTE TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Zmir Caddesi 62	Banel 33	traditional 2	D	D	1	1	U	2.1.b.3	1	1	Zmir C.	DW02A1 closed	C1A2A2.4 D2	ex shop door converted into window	W01A1	LWC1	7	SMC1	1	7	
Zmir Caddesi 64		traditional 2	D	D	2	1	U	2.1.b			Banel S.	DW01A A1		U	W01A1	LWC1	7	SMC1	1	7	
Zmir Caddesi 66		traditional 2	D	D	4	2	U	2.1.b				DW02A C2A2.3	9	U	W01A1	LWA2	9	SMC1	1	9	
Zmir Caddesi 68		new																			
Zmir Caddesi 70		new																			
Zmir Caddesi 72		traditional 2	D	D	1	1	U	2.1.b				DW02A A2B1	9	U	W01C2	LWA2	9	SMC1	1	9	
Zmir Caddesi 74		traditional 2	D	D	1	1	U	2.1.b				DW02A A2B1	9	U	W01C2	LWA2	9	SMC1	1	9	
Zmir Caddesi 76		new	D	D																	
Zmir Caddesi 78		new	D	D																	
Zmir Caddesi 80		new	D	D																	
Zmir Caddesi 82		new	D	D																	
Zmir Caddesi 84		new	D	D																	
Zmir Caddesi 86		new	D	D																	
Zmir Caddesi 88		traditional 2	C-H-D	D	1	1	U	2.1.a.4	1			DW02A C1A2.2 closed	D1	U	W01C2	LWA2	9	SMC1	1	9	
Zmir Caddesi 90		restored D12	D	D	1	5	U	2.1.b				DW02A A1	9	U	W01A1	LWA1	9	SMC1	1	9	
Zmir Caddesi 92		traditional 2	C-H-D	C-H-D	3	4	U	2.1.a.b	1	1	Zmir C.	DW01A A2B1	9	U	W01A1	LWC4	4	SMC1	1	3	
Zmir Caddesi 94		traditional 2	C-H-D	C-H-D	3	4	U	2.1.a.b	1	1	Zmir C.	DW01A A2B1	9	U	W01A1	LWC4	4	SMC1	1	3	
											Savran S.	DW01A A2B1.1 closed	4	U	W01C3	LWC4	4	SMC1	1	7	
												DW01A A2B1.1 rest	9	U	W01B2	LWC4	4	SMC1	1	4	

















ADDRESS & ELEVATIONS		city	#stories	original function	current function	structural cond.	plaster	use	façade typ	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Karagöz Sokadı	18	traditional	1	D	D	1	1	E	1.1.b				new	A1	9	new	LWA1	9	new	SW03A	2	3
Karagöz Sokadı	20	traditional	1	D	D	1	1	E	1.2.b				new	Aa1 B2.1	9	new	LWA2	7	X	1	9	9
Karagöz Sokadı	22	traditional	1	D	D	2	3	E	2.1.a,b	1			DW02B2	C2.Aa4.4	8	new	LWB2	8	paintur	1	9	9
Karagöz Sokadı	24	traditional	1	D	D	5	5	E	1.1.b.1				DW02B3	A1	2	new	LWA1	8	SW03A1	1	9	9
Karagöz Sokadı	26	traditional	2	D	D	1	5	E	2.1.b	1			DW02B5	C2.Aa4.4	8	new	LWB4	8	X	1	9	9
Karagöz Sokadı	28	new	1	D	D	1	1	E	2.1.b.2	1			DW02B1	Aa4.1	4	new	LWA1	7	SW03A	2	3	3
Karagöz Sokadı	30	traditional	2	D	D	1	1	E								new	LWA1	7	SW03A	2	3	3
Merkez Caddesi	1	new																				
Merkez Caddesi	3	new																				
Merkez Caddesi	5	new																				
Merkez Caddesi	7	traditional	2	D	D	1	5	E	2.1.b			Merkez C.	new	A1	9	new	LWA1	9	X	1	9	9
Merkez Caddesi	9	traditional	2	D	D	3	2	E	2.1.a			Atalay S.	DW03A	Aa2.5	7	new	LWA1	9	SW03A	4	7	7

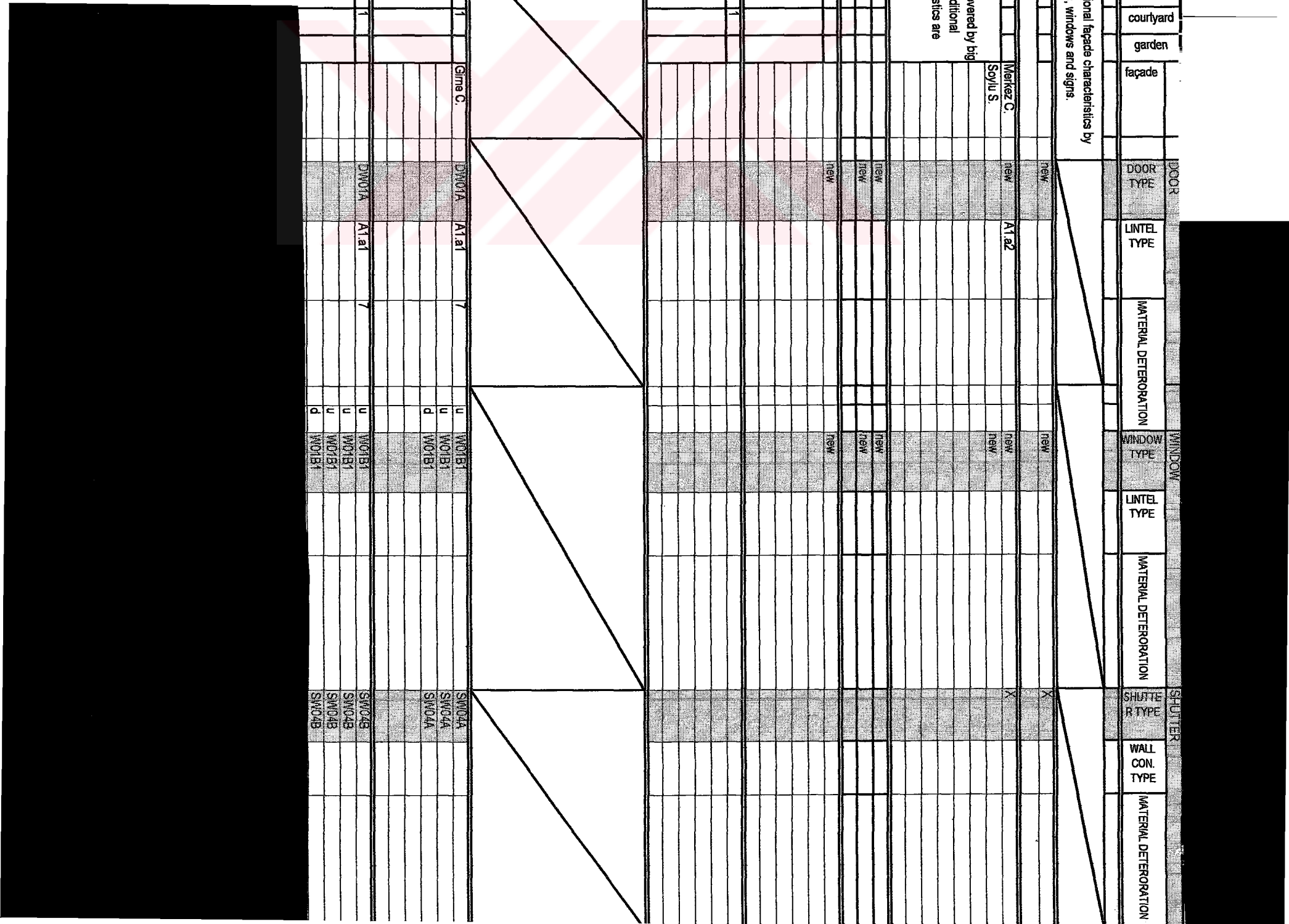
It is a part of the building No.15 of İsmi Caddesi. It has a separate entrance and there is no link between two buildings.

H.14 Building Documentation Chart



ADDRESS & ELEVATIONS		ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION
Merkez Caddesi	12	traditional	1	cinema		5	1	U	1.1.b.5			Merkez C. Soyulu S.	new		A1.a2		new				X			
Merkez Caddesi	14	traditional	1	C		1	5	U	1.1.b.5															
Merkez Caddesi	16	traditional	1	C		1	5	U	1.1.b.5															
Merkez Caddesi	18/20	traditional	1	C		1	5	U	1.1.a.5															
Merkez Caddesi	22	traditional	1	C		1	5	U	1.1.a.5															
Merkez Caddesi	24/26	traditional	1	C		1	1	U	1.1.b.5			Merkez C. Soyulu S.	new		A1.a2		new				X			
Merkez Caddesi	28	traditional	1	C		1	1	U	1.1.b.5															
Merkez Caddesi	30	new	2	C				U	1.1.b.5															
Merkez Caddesi	32	traditional	1	C				U	1.1.b.5															
Merkez Caddesi	34	traditional	1	C				U	1.1.b.5															
Merkez Caddesi	36	traditional	2	C+D		1	2	U	2.1.b.5															
Merkez Caddesi	38	new	2	C				U																
Merkez Caddesi	40	new	2	C				U																
Merkez Caddesi	42	new	2	C				U																
Merkez Caddesi	44	new	2	C				U																
Merkez Caddesi	46	new	2	D				U																
Merkez Caddesi	48	new	2	D				U																
Merkez Caddesi	50	new	2	D				U																
Merkez Caddesi	52	new	2	D				U																
Merkez Caddesi	54	new	2	D				U																
Merkez Caddesi	56	new	2	D				U																
Merkez Caddesi	58	new	2	D				U																
Merkez Caddesi	1	traditional	2	D		3	1	U	2.1.b			Merkez C.	new		A1.a1		new							
Merkez Caddesi	3	traditional	2	D		2	1	U	2.1.b						A1.a1		new							
Merkez Caddesi	5	new																						
Merkez Caddesi	7	traditional																						
Merkez Caddesi	9	traditional																						
Merkez Caddesi	11	new																						
Merkez Caddesi	13	traditional																						
Merkez Caddesi	15	new																						
Merkez Caddesi	17	new	12																					

1.18 Building Documentation Chart



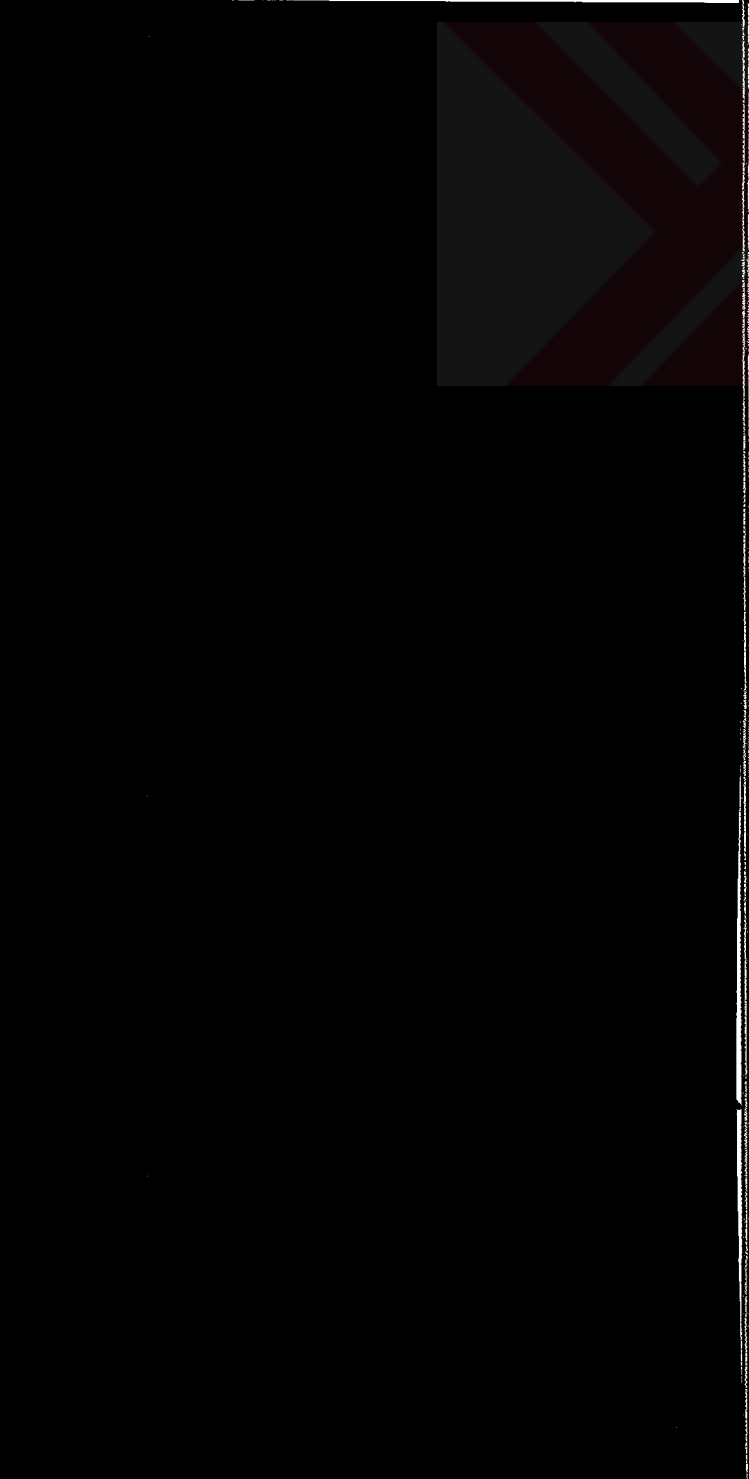






ADDRESS & ELEVATIONS										CONDITION		DOOR		WINDOW		SHUTTER		WALL CON. TYPE		MATERIAL DETERIORATION	
Haçneme No.	ky	#stories	original function	current function	structural cond.	plaster	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Kasıkcı sokakı 17	new	2	D	D			U														
Kasıkcı Sokakı 19	new	2	D	D			U														
Kasıkcı sokakı 2	new	2	D	D			U														
Kasıkcı sokakı 4	new	2	D	D			U														
Kasıkcı sokakı 6	new	2	D	D			U														
Kasıkcı sokakı 8	new	2	D	D			U														
Kasıkcı sokakı 10	new	2	D	D			U														
Kasıkcı sokakı 12	new	2	D	D			U														
Kasıkcı sokakı 14	new	2	D	D			U														
Kasıkcı sokakı 16	new	2	D	D			U														
Kasıkcı sokakı 18	new	2	D	D			U														
Kasıkcı sokakı 20	traditional	2	D	D			U	2.1b				D/WD2A	A1.a1		U	WD2A	LWAT			X	
Kasıkcı sokakı 22	traditional	2	D	D			U	2.1b				D/WD2A	A1.a1		U	WD2A	LWAT			X	
Fevziçakmak Cad. 1	new	2	D	D			U														
Fevziçakmak Cad. 3	new	2	D	D			U														
Fevziçakmak Cad. 5	new	2	D	D			U														
Fevziçakmak Cad. 7	new	2	D	D			U														
Fevziçakmak Cad. 9	new	2	D	D			U														
Fevziçakmak Cad. 11	new	2	D	D			U														
Fevziçakmak Cad. 13	new	2	D	D			U														
Fevziçakmak Cad. 15	new	2	D	D			U														
Fevziçakmak Cad. 17	new	2	D	D			U														
Fevziçakmak Cad. 19	new	2	D	D			U														
Fevziçakmak Cad. 21	new	2	D	D			U														
Fevziçakmak Cad. 23	new	2	D	D			U														
Fevziçakmak Cad. 25	new	2	D	D			U														
Fevziçakmak Cad. 27	new	2	D	D			U														
Fevziçakmak Cad. 29	traditional	1	S	S			U														
Fevziçakmak Cad. 31	traditional	1	S	S			U														
Fevziçakmak Cad. 33	traditional	1	S	S			U														
Fevziçakmak Cad. 35	traditional	1	S	S			U														
Fevziçakmak Cad. 37	new	2	D	D			U														
Fevziçakmak Cad. 39	new	2	D	D			U														

H.20 Building Documentation Chart





ADDRESS & ELEVATIONS										CONDITION			DOOR			WINDOW			SHUTTER		
Address	City	#stories	original function	current function	structural cond.	plaster	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Fevziçakmak Cad. 61	traditional	1	D	D	3	3	U	1.3.b				new	C1.A.62.2	9	WO1A2	LWA1					
Fevziçakmak Cad. 66	new	2		D			D														
Fevziçakmak Cad. 67	new	2		D			D														
Fevziçakmak Cad. 69	restored			D			D														
Fevziçakmak Cad. 71	restored	2	D	D	1	1	U	2.1.b.5	1			new	C1.B2.A.63.1	9	new	LWA2	9	new	SWO3B	9	
Fevziçakmak Cad. 73	traditional	2	D	D	5	3	E	2.1.b.5	1			X	A1.1	9	X	LWA2	9	X		9	
Fevziçakmak Cad. 75	traditional		garden	D			E	2.1.b	1	1	Fevziçak	DWO1A	A1.a1	5	WO1A1	LWA1	3.2		SWO3A	1	2.4
Fevziçakmak Cad. 77/79	traditional			D			E					DWO1A	A1	7	WO1A1	LWA1	3.5				
Fevziçakmak Cad. 40	traditional	1	D	D	2	3	E	1.3.b	1	1		DWO1A	B2.A.B2.3	7	WO1A1	LWB2	7	X		2	9
Fevziçakmak Cad. 42	new			D			U					DWO1A	C2.A.B4.4	7	WO1C1	LWB2		X		1	9
Fevziçakmak Cad. 44	traditional	1	D	D	1	2	U	1.2.b	1	1		DWO1A			WO1C1	LWB2		X		1	9
Fevziçakmak Cad. 46	traditional	1	D	D	1	5	U	1.1.b				new	A.a1	9	new	A1	9	X		2	9

ADDRESS & ELEVATIONS				ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR		WINDOW		SHUTTER	WALL CON. TYPE	MATERIAL DETERIORATION		
								structural cond.	plaster						DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION
Fevziyakmak Cad.	48			traditional	1																		
Ziya Camp Sokakı	1			new	B+1																		
Ziya Camp Sokakı	3	Sarıllı Caddesi		traditional	B+1																		
Ziya Camp Sokakı	1																						
Ziya Camp Sokakı	2																						
Ziya Camp Sokakı	4																						
Ziya Camp Sokakı	8																						
Ziya Camp Sokakı	5	Yıldız Sokakı 5		traditional	2																		
Ziya Camp Sokakı	7			new																			
Ziya Camp Sokakı	9			new																			
Ziya Camp Sokakı	2			new	2																		
Ziya Camp Sokakı	4			new	2																		
Ziya Camp Sokakı	8			new	2																		
Ziya Camp Sokakı	8			traditional	2																		
Ziya Camp Sokakı	10			new	2																		
Ziya Camp Sokakı	12			new	2																		
Ziya Camp Sokakı	14			new	2																		
Ziya Camp Sokakı	1			traditional	2																		
Ziya Camp Sokakı	3			traditional	2																		
Ziya Camp Sokakı	5			traditional	1																		
Ziya Camp Sokakı	4			traditional	1																		
Ziya Camp Sokakı	6			restored	2+1																		
Ziya Camp Sokakı	3	Alay Sokakı 2		restored	2+1																		
Ziya Camp Sokakı	3																						
Ziya Camp Sokakı	3																						
Ziya Camp Sokakı	3																						
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Ziya Camp Sokakı	3		</																				

ADDRESS & ELEVATIONS				CONDITION				DOOR				WINDOW				SHUTTER					
Address	ely	#stories	original function	current function	structural cond.	plaster.	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Yildiz Sokakı 1	new	2	D	D								D	D								
Yildiz Sokakı 3	new	2	D	D								D	D								
Yildiz Sokakı 7	new	2	D	D								D	D								
Yildiz Sokakı 9	new	2	D	D								D	D								
Yildiz Sokakı 2	new	2	D	D								D	D								
Yildiz Sokakı 4	new	2	D	D								D	D								
Yildiz Sokakı 6	new	2	D	D								D	D								
Yildiz Sokakı 8	new	2	D	D								D	D								
Yildiz Sokakı 10	new	2	D	D								D	D								
22. So.(Orkun) 1	new	2	D	D								D	D								
22. So.(Orkun) 3	new	2	D	D								D	D								
22. So.(Orkun) 5	new	2	D	D								D	D								
22. So.(Orkun) 7	traditional	2	D	D				2.1.b.8	1			D	D								
22. So.(Orkun) 9	traditional	2	D	D				2.1.b.8	1			D	D								
22. So.(Orkun) 11	traditional	2	D	D				2.1.b.8	1			D	D								
22. So.(Orkun) 13	new	2	D	D								D	D								
22. So.(Orkun) 15	new	2	D	D								D	D								
22. So.(Orkun) 17	new	2	D	D								D	D								
22. So.(Orkun) 19	new	2	D	D								D	D								
22. So.(Orkun) 21	new	2	D	D								D	D								
22. So.(Orkun) 2	traditional	2	D	D				2.1.a	1			D	D								
22. So.(Orkun) 4	traditional	1	storage	?								D	D								
22. So.(Orkun) 6	new	1										D	D								
22. So.(Orkun) 8	collapsed											D	D								
22. So.(Orkun) 10	new											D	D								
Sirin Sokakı 27	traditional	1	D	D				1.1.a				D	D								
Sirin Sokakı 29	traditional	1	C	C								D	D								
Sirin Sokakı 31	new	2	C	C								D	D								
Sirin Sokakı 33	new	2	C	C								D	D								
Sirin Sokakı 35	traditional	1	C	C				1.1.b				D	D								

1.43 Building Documentation Chart

ADDRESS & ELEVATIONS		ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR		WINDOW			SHUTTER		WALL CON. TYPE	MATERIAL DETERIORATION	
						structural cond.	plaster						DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE			
Sün Sokakı	2	new	2										DW01A	A1.3	2	X	LWE2	2	SW05A	1	2	
Sün Sokakı	4	traditional	1	C	C																	
Sün Sokakı	8	traditional	1	C	C				1.1.b				DW01A	A1.3	4	X	LWE2	4	SW05A	1	4	
Sün Sokakı	8	traditional	1	C	C				1.1.b													
Sün Sokakı	8	traditional	1	C	C				1.1.b													
Sün Sokakı	10	traditional	1+R	C	C				1.2.b													
Sün Sokakı	10	traditional	1+R	C	C				1.2.b													
Sün Sokakı	12	traditional	1+R	C	C				1.2.b													
Sün Sokakı	14	traditional	1	S	S																	
Sün Sokakı	16	new	1	D	D																	
Sün Sokakı	18	traditional	2	D	D																	
All Yığın Cad	1	new	2	D	D																	
All Yığın Cad	3	new	2	D	D																	
All Yığın Cad	5	new	2	D	D																	
All Yığın Cad	7	traditional	2	D	D				2.1.b													
All Yığın Cad	7	traditional	2	D	D				2.1.b													
All Yığın Cad	18	traditional	2	D	D				2.1.b.17													
All Yığın Cad	20	traditional	2	D	D				2.1.b.17													

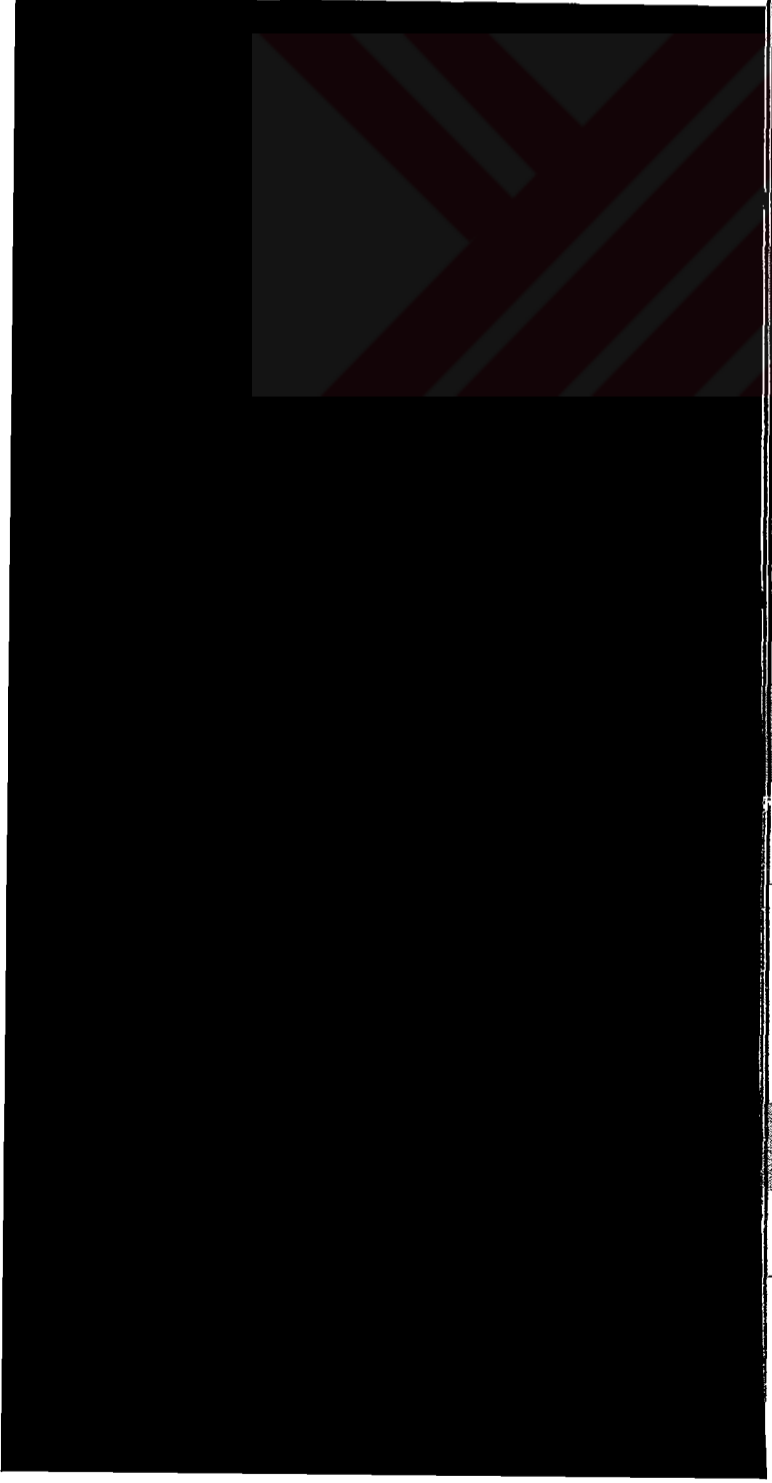
H.24 Building Documentation Chart



ADDRESS & ELEVATIONS		city	#stories	original function	current function	structural cond.	plaster	use	façade type	courtyard	garden	façade	DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Kaplan Sokakı	5	new																				
Kaplan Sokakı	7	traditional	2	D	D	3	1		2.1.a.2			Kaplan S.	DW02A2	A.a3.1	4	U	WO1B2	LVA2	5	SM03B	1	5
Kaplan Sokakı	2	new																				
Kaplan Sokakı	4																					
Kaplan Sokakı	6																					
Kaplan Sokakı	8																					
Balçihiz So.	1	restored	B+1	D	D	1	1		2.1.a				new	B4.B2.A.a2.4	9	U	new	LVB4	9	X	2	9
Balçihiz So.	3	new	2	D	D																	
Balçihiz So.	5	new	2	D	D																	
Balçihiz So.	7	new	2	D	D																	
Balçihiz So.	9	new	2	D	D																	
Balçihiz So.	11	new	2	D	D																	
Balçihiz So.	13	new	2	D	D																	
Balçihiz So.	15	new	2	D	D																	
Balçihiz So.	2	new	2	D	D																	
Balçihiz So.	4	new	2	D	D																	
Balçihiz So.	6	traditional	B+1	D	D	5																
Balçihiz So.	8	traditional	B+1	D	D	4	1		1.3.b				DW02A1	B3.A.a2.5	7	U	WO1A1	LVB3	7	X	1	9
Balçihiz So.	10	new	2	D	D																	
Kalkın Sokakı	1	new	2	D	D																	
Kalkın Sokakı	3	new	2	D	D																	
Kalkın Sokakı	5	traditional																				
Kalkın Sokakı	7	new	2	D	D																	
Kalkın Sokakı	9	new	2	D	D																	
Kalkın Sokakı	11	new	2	D	D																	
Kalkın Sokakı	15	new	2	D	D																	
Kalkın Sokakı	17	new	2	D	D																	
Kalkın Sokakı	2	new	2	D	D																	
Kalkın Sokakı	4	new	2	D	D																	
Kalkın Sokakı	6	new	2	D	D																	
Kalkın Sokakı	8	new	2	D	D																	

Cracks in the front facade.

H.26 Building Documentation Chart









ADDRESS & ELEVATIONS		ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR			WINDOW			SHUTTER			
						structural cond.	plaster						DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION	
Hilmi Varol So.	20	traditional	1	D	D	5																
Hilmi Varol So.	22	new	1	D	D	5																
Hilmi Varol So.	24	traditional	2	D	D	2	1		2.1.b			HilmiVarol S.	DW07A	A1.a2.b1	7	u	new	LW04	9	X	1	9
Hilmi Varol So.	26	traditional	2	D	D	2	1		2.1.b													
Hilmi Varol So.	28	new																				
Hilmi Varol So.	29	new																				
Hilmi Varol So.	30	new																				
Gezener Sokaklı	1	new																				
Gezener Sokaklı	3	new																				
Gezener Sokaklı	5	new																				
Gezener Sokaklı	7	new																				
Gezener Sokaklı	9	traditional	2	D	D	3	1		2.1.b													
Gezener Sokaklı	4	new																				
Gezener Sokaklı	6	traditional	2	D	D	5	1		2.1.a													
Gezener Sokaklı	8	new																				
Gezener Sokaklı	10	traditional	2	D	D	5	1															
Gezener Sokaklı	12	traditional	2	D	D	5	5		2.1.b													
Gezener Sokaklı	14	new																				
Gezener Sokaklı	16	traditional																				
Gezener Sokaklı	18	new																				
Gezener Sokaklı	20	new																				
Gezener Sokaklı	22	traditional																				
Çalkas sokaklı	1	new																				
Çalkas sokaklı	3	new																				
Çalkas sokaklı	5	new																				
Çalkas sokaklı	7	new																				
Çalkas sokaklı	9	traditional																				

H.29 Building Documentation Chart



Bayraktar Sokadı	8	traditional	2	D	D	3	1	1	E	21b	1	1	DW01A	2	u	X	LW04	2	X	1	9	
Bayraktar Sokadı	10	traditional	2	D	D	5	1	1	E	21b	1	1	X	A1.33bt	9	u	X	LW04	9	X	1	9
Bayraktar Sokadı	12	traditional	2	D	D	2	1	1	U	21b	1	1	DW01A	A.22bt	7	u	X	LW04	7	X	1	9
Bayraktar Sokadı	14	traditional	2	D	D	1	1	1	U	21b	1	1	new	A.23bt	9	u	new	LW04	9	new	1	9
Bayraktar Sokadı	16	traditional	2	D	D	3	1	1	E	21b	1	1	DW01A	A.11bt	3	u	new	LW04	2	SP03A	1	2
Bayraktar Sokadı	18	traditional	2	D	D	1	1	1	U	21b	1	1	new	C1.b1.A1.at	9	u	new	LW03	9	X	1	9
Bayraktar Sokadı	20	traditional	2	D	D	1	5	5	U	21b	1	1	new	A1.at	9	u	new	9	9	X	1	9
Bayraktar Sokadı	22	traditional	1	S	S	3	1	1	U	11b	1	1	new	C1.A1.at	9	D	new	LW02	7	X	1	9
Bayraktar Sokadı	24	traditional	1	D	D	3	1	1	U	11b	1	1	new	C1.A1.at	9	D	new	LW02	7	X	1	9
Bayraktar Sokadı	26	traditional	2	D	D	5	1	1	E	21b	1	1	DW01A	A.11bt	4	u	closed	LW02	9	X	1	9

Darkening at the base.  
White-wash at the first floor.  
House level lower than street level.

H.31 Building Documentation Chart



ADDRESS & ELEVATIONS		ely	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR		WINDOW		SHUTTER						
						structural cond.	plaster						door type	lintel type	material deterioration	type	lintel type	material deterioration	shutter type	wall con. type	material deterioration		
Boduligan sokaki	23	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a3.b1	9	U	WOIC3	LVA2	7	X	1	9	
Boduligan sokaki	25	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a3.b1	4	U	WOIC3	LVA2	7	X	1	9	
Boduligan sokaki	27	new	2	S	S																		
Boduligan sokaki	2	traditional	2	S	S																		
Boduligan sokaki	4	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a2.b1	7	U	WOIC3	LVA2	8	X	1	9	
Boduligan sokaki	6	traditional	2	D	D	1	1	U	2.1b	1	Entrance from garden.		new	A1.1	8	U	WOIC1	LVA1	8	X	1	9	
Boduligan sokaki	8	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a2.2	9	U	WOIC1	LVA1	9	X	1	9	
Boduligan sokaki	10	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a2.2	9	U	WOIC1	LVA1	9	X	1	9	
Boduligan sokaki	12	new	2	D	D																		
Boduligan sokaki	14	new	2	D	D																		
Boduligan sokaki	16	traditional	2	D	D	1	1	U	2.1b	1			new	A1.a2.2	9	U	WOIC1	LVA1	9	X	1	9	
Boduligan sokaki	18	traditional	2	D	D	2	5	U	2.1b	1			new	A1.a2.b1	9	U	WOIC1	LVA2	6	X	1	9	

H.33 Building Documentation Chart

ADDRESS & ELEVATIONS		style	#stories	original function	current function	CONDITION		use	façade type	courtyard	garden	façade	DOOR		WINDOW	WALL	MATERIAL DETERIORATION				
						structural cond.	plaster						DOOR TYPE	LINTEL TYPE	MATERIAL DETERIORATION	WINDOW TYPE	LINTEL TYPE	MATERIAL DETERIORATION	SHUTTER TYPE	WALL CON. TYPE	MATERIAL DETERIORATION
Cinar Sokakı	42	traditional	1	D	D	1	1	D	2.1b	1	1		DW01A	A1.1	u	W01B1	LWC3	6	X	1	9
													DW01A	A1.ad	u	W01B1	LWC3	6	X	1	9
															u	W01B1	LWC3	6	X	1	9
															d	new	LWC3	9	X	1	9
Cinar Sokakı	44	traditional	B+1	D	D	3	1	B	2.1b	1	1		DW01A2	B1.A2.4	u	W01B1	LWC3	6	X	1	9
													DW01A	A1	u	W01B1	LWC3	6	X	1	9
															d	X	LWC3	6		2	4
Cinar Sokakı	46	traditional	B+1	D	D	3	1	B	2.1b	1	1		DW01A2	B1.A2.4	u	W01B1	LWC3	6	X	1	9
													DW01A	A1	u	W01B1	LWC3	6	X	1	9
															d	X	LWC3	6		2	4

**LEGEND**

**Number of Stories** B+1: One storey building with basement  
 1: One Storey Building  
 B+2: Two storey building with basement  
 2: Two storey building  
 R+2: Two Storey building with a roof storey

**Elements Problems** 1: Loss of a section of the element  
 2: There are some material problems and partial material loss  
 3: There are serious material problems: Widespread rusting in iron, and insect problem, fungi or rot in wood  
 4: There are mild material Problems  
 5: Element needs repair. There are no material problems  
 6: There are usage problems. The owner has functional complaints  
 7: Element needs maintenance. There are no problems  
 8: Element is well maintained  
 9: Element is lost  
 new: Element is replaced with a new one

**Function** D: Dwelling  
 C: Commercial Building  
 C+D: Commercial Building and Dwelling  
 S: Service Building

**Structural Condition** 1: Building in very good state  
 2: Building needs slight repairs  
 3: There are slight structural problems and some serious material problems  
 4: Building has serious structural and material problems  
 5: Collapsed Building. Either totally collapsed or roof has collapsed completely

**NOTE: FOR FAÇADE AND ELEMENT TYPES, SEE THE TYPOLOGY LISTS**

**Plaster** 1: Originally there is no plaster  
 2: Distinctive plaster  
 3: good condition  
 4: material problems  
 5: plaster loss  
 6: extend to a great extend